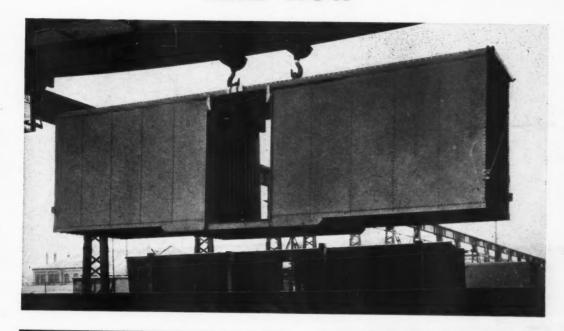
MARCH 25, 1944 BOLL WAY AS 1944 Founded in 1856

Youngstown Steel Doors and Sides PREWAR AND NOW



Youngstown Steel Door Company has capacity available to produce steel doors and steel carsides to meet the requirements of governmentapproved equipment programs—

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All without interruption of production under prime war contracts.



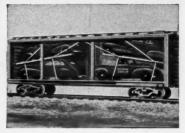
YOUNGSTOWN STEEL DOOR COMPANY
Cleveland Chicago New York Youngstown



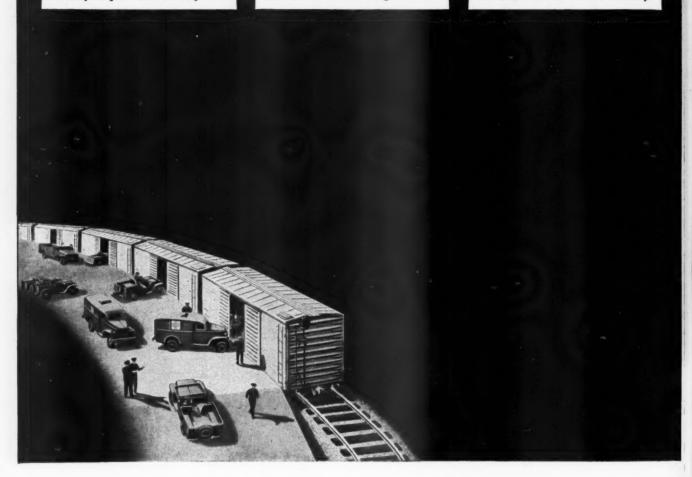
War vehicles are quickly loaded into Evans Auto - Loader equipped box cars where they are held firmly and securely in place for safe shipment.



Evans Auto-Loader is designed to transport all types of automobiles. Mixed loads of jeeps, trucks and ambulances carried in a single box car.



Showing how four automobiles are cradled safely in an Auto-Loader box car . . . shippers and receivers are saved millions of dollars annually.



horsepower for the infantry

Jeeps-spirited little steeds of the infantry-are the galloping messengers of invasion on every front.

The job of getting jeeps, ambulances and other military vehicles to the theaters of war in record-breaking time is further tribute to American ingenuity-and to the skill of Evans technicians who created the famous Evans Auto-Loader for the shipment of automobiles.

This ingenious equipment makes it possible to ship more automobiles in one box car with complete safety ... holds them securely in transit ... speeds loading and unloading. And the result is a substantial saving in shipping costs.

When the passenger car production lines start rolling again, thousands of Auto-Loader equipped box cars will speed millions of new automobiles to dealers ... and yours will arrive unscratched, undamaged-ready to serve your transportation needs.

Vision to Anticipate the Needs of Tomorrow Creates New Industries Today



tro



EVANS PRODUCTS COMPANY

DETROIT

Evans War Products: Machine Gun Mounts • Tank and Automotive Heating and Ventilating Equipment • Evanoil Water Heaters • Aircraft Engine Mounts • Airplane Landing Gear Beams • Battery Separators • Prefabricated Houses • Plywood • Skyloader • Utility Loader • Auto-Loader • Auto-Railer • Auto-Stop • Stampings • Evanair Domestic Heating Equipment

Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price \$6.00 for one year U. S. and Canada. Single copies, 25 cents each. Vol. 116, No. 13.



All through the night, the wheels click rhythmically ... mile after rushing mile ... down the long track. Busy wheels, bustling through the darkness, carrying troops, service men and women on leave, engineers and businessmen—people devoting their days and nights to winning a war. The dawn sweeps westward from the Atlantic . . . the passengers go about their work . . . and the wheels roll on without rest.

With equipment in service all around the clock, day after day, wheels are needed that will give long, trouble-free service. Those are the sort of wheels that Bethlehem makes. For years Bethlehem has been turning out tough, remarkably long lasting passenger wheels. In the forging and rolling operations, for instance, all Bethlehem's experience in working steel has been applied to developing and perfecting methods that would produce wheels with toughness and ruggedness that mean many extra miles.

In the machining of the wheels, Bethlehem uses the most modern machine tools that produce the highest possible precision in the finished wheel. And, as a final step, to better resist wear and to promote strength and long life of these wheels, Bethlehem uses an advanced, elaborate method of heat treatment.

Next time you need passenger car wheel replacements, specify Bethlehem Wrought Steel Wheels and Forged Steel Axles. See for yourself how little maintenance they require and how long they last.



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FREIGHT FREOGRESS PROGRESS -War and Post-War

Railway Age

...the fifth annual survey and review of railway freight service and developments ...including a comprehensive discussion of War and Post-War plans.

May 20, 1944

Sounding the Keynote of 1944's Mighty Transportation Effort... and Looking Ahead to Post War!

THE 1944 Freight Progress Annual will undertake to dramatize the full magnitude of the job the railroads are doing and what they need to continue their performance. It will crystallize the facts of the amazing achievements of the railroads during the past 12 months and the immediate problems with which they are confronted.

In addition, the 1944 Freight Progress Annual will contain a comprehensive discussion of the prospects and problems of post-war freight service and equipment. It will direct attention to what may be expected in the future when competition will again challenge the railroads. War and post-war factors will be weighed pro and con.

It will bring this war and post-war picture home to all groups involved in transportation, including the nation's important shippers, key government and military officials . . . with the full impact of a single concentrated effort. In the Freight Progress Annual, each railroad can tell the story of its specific services and what it is doing in handling the record-breaking load of war traffic. The post-war features of this issue set the stage for building now for the intensive peace-time competition ahead.

The manufacturers' advertising pages will effectively supplement the editorial discussion by telling the story of railway freight service in terms of what the railroads are doing it with . . . cars, locomotives, appliances, track, signal equipment, tools and materials.

Due to wartime difficulties, under-manned staffs and resulting delays, we urge you to plan your advertising early. Wherever possible send your copy and cuts well in advance of the closing date to assure careful attention and handling.

OFFI DISTRIB STATES WAS ROMOS



1943 was truly a year of unbelievable railroad achievement, but it took MEN to perform these wonders.

Not just any men, but determined, purposeful, and above all, EXPERIENCED MEN, with years of practical railroad training behind them.

MEN equipped with the "know-how" that comes only from hard-won mastery of the hundreds of vital details which are part of every railroading job.

MEN who knew how-and know howto run the vast, complex mechanism that

> is the railroads... gearing it to carry successfully nine-tenths of the nation's colossal war

time transportation burden.

In performing their epic achievements of '43, these men of the railroads have overcome operating and maintenance difficulties without equal in American railroad history. But even greater difficulties lie immediately ahead — difficulties that, left unsolved or only partly solved, might cripple or paralyze all railroad operations.

Only skill of the highest order can enable the railroads to carry their heavy war load successfully on to Victory. In the men who possess this skill rests the hope of the railroads and of the nation they have always served so well.

* BUY UNITED STATES WAR BONDS





AIR REDUCTION

General Offices: 60 EAST 42nd STREET, NEW YORK 17, N. Y.
In Texas: MAGNOLIA AIRCO GAS PRODUCTS CO. - General Offices: HOUSTON 1, TEXAS
Offices in all Principal Cities

STANLEY LE GRANDE, SAFETY ACE

More than forty years ago, when Stanley Le Grande got his first job in the Illinois Central shops at Mattoon, Illinois, he noticed that his foreman had lost part of a hand. Stanley made up his mind to prevent accidents.

In 1908, a year after the road's first safety Committee was organized at Mattoon, Stanley designed and built a guard for a shop jointer. That guard is still used in its original form—no man has ever been injured who made use of it.

In 1910 a millman, while running a board through a ripsaw, lost his hand at the wrist. Stanley promptly devised a guard for that saw and in thirty-three years no man has been injured who used it.

Stanley wasn't satisfied with devising protection after an accident. He turned out a guard which enclosed the pulleys and belt of a high-speed hollow mortiser, and put a steel shield on the traveling head of this machine.

He also built an ingenious guard for a cut-off saw, and protective lattices on a band-saw assembly, greatly decreasing the accident possibility.

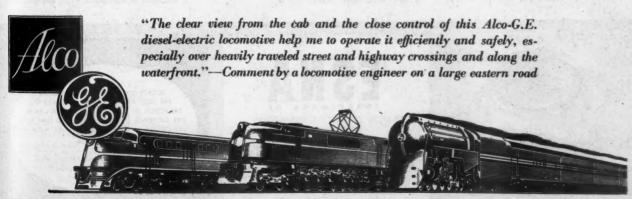
Higher-ups began to notice Stanley Le Grande's habit of noticing, and he was made Chairman of the Mattoon Safety Committee. Soon, Master Mechanic D. L. McMillan appointed him a traveling investigator of injuries and accidents in his territory.

When a machinist was killed by falling from an engine cab into the engine pit, Le Grande came across with a portable scaffold of steel legs, solid flooring, and back guard rail, now commonly used in railroad shops. When a boilermaker was badly hurt by falling in front of an engine, he devised a guard rail to prevent such accidents.

One of his latest devices is a little turntable by which one man—or woman—can safely shift a pair of car wheels onto a repair track.

Stanley Le Grande has made a career of saving the lives and limbs of fellow railroaders. Last year—his forty-second of railroading—he was designated a Safety Ace by the National Safety Council, an honor rarely conferred.

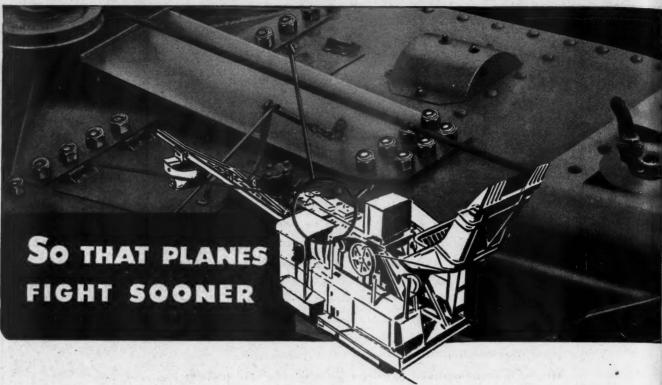
-The Trackwalker



AMERICAN LOCOMOTIVE • GENERAL ELECTRIC Copr., 1944, American Locomolive Company and General Electric Company

March 25, 1944

CE



Ransome pavers built American highways. Now they are rushing airports along our battle fronts.

Every hour of construction time they can save gives that much advantage to our fighting airmen.

Paving is a shattering job. And it used to be accepted that frequent take-ups and tightening were part of paver maintenance.

But no more! Not since Ransome began using Elastic Stop Nuts the nuts that stay put.

Now the paver keeps on the go longer, and our planes fight sooner.

The reason Elastic Stop Nuts

hold tight in spite of wracking vibration lies in the elastic collar in their tops. This snuggles close around the bolt threads, grips them and prevents the nut from turning and loosening.

Countless fastening problems lie ahead in the coming days of peace. Many of them will be solved successfully with Elastic Stop Nuts. Products will be safer, and longer-lasting. Production equipment will stay at work with less maintenance.

If you are faced with a fastening problem, feel free to call upon us. Our engineers will gladly help you solve it and suggest the proper Elastic Stop Nut.

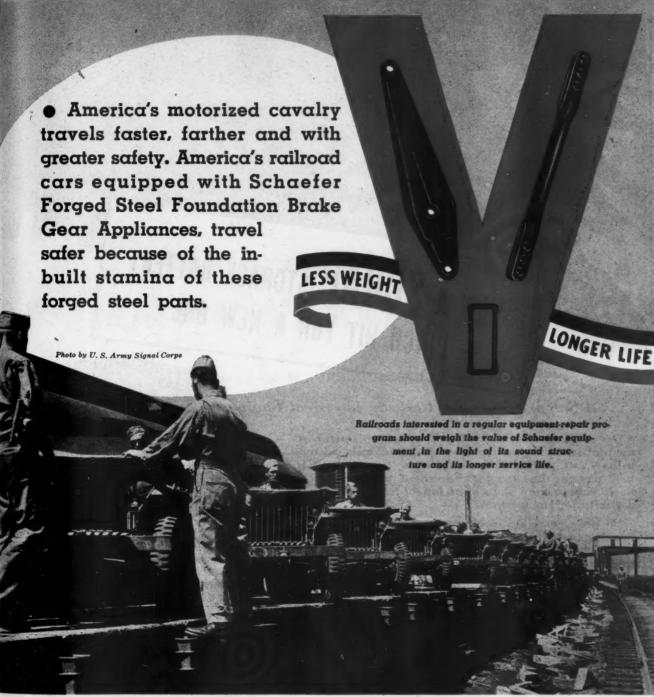
ELASTIC STOP NUTS HELP BIG, BUSY RANSOME PAVERS DO MANY VITAL WAR JOBS

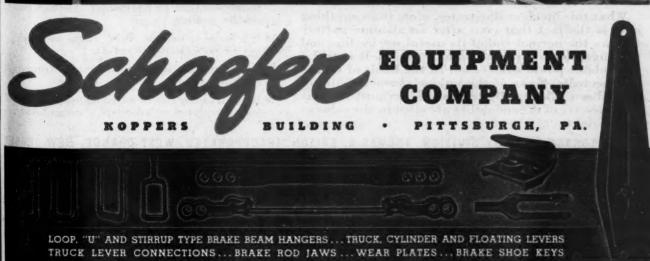
"Concrete road pavers are subjected to tough, grueling work, especially on twentyfour-hours-a-day service, for which many Ransome Pavers have been called upon in the construction of airport runways since the war started. All told, there are about 1,200 Elastic Stop Nuts used on every Ransome Paver we build. By substituting Elastic Stop Nuts for the ordinary kind, we are helping the Ransome Paver owner minimize his maintenance job because the nuts are self-locking and vibration proof. No time out for tightening-no extra hours of labor to take up slack. Elastic Stop Nuts also simplify our shop assembly job. They are a further contribution to the improvement of our paver, which is our constant

Taber Chief Engineer

RANSOME MACHINERY CO., DUNELLEN, N. J.
Subsidiary of Worthington Pump and Machinery Co.







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kind, wner s the roof.

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A few years ago, an Edison Alkaline Battery, operating an industrial truck in a New England railroad terminal, was retired from service as "worn out." It had passed the usual "retirement age" and was beginning to show signs of no longer having adequate capacity for the work.

So the electrician in charge issued instructions to have it crated and shipped back to our factory for scrap credit. The battery was crated but in some unaccountable manner was not shipped. Instead, it was sidetracked into a corner of a dead storage room where it remained unnoticed for more than a year.

By lucky coincidence it was discovered again at a time when the terminal happened to be short of industrial-truck batteries. It was uncrated, charged, and put into one of the trucks just to see what it could do. It did so well that it was kept in regular use and was not finally replaced with a new one until more than a year later.

What this incident illustrates, more than anything else, is the fact that even after an alkaline battery reaches the normal end of its useful service life, and no longer delivers its full rated capacity, it is still a dependable power source, not in the habit of failing unexpectedly. Some of the unique characteristics of the Edison Alkaline Battery which account for this great reserve of dependability are cited in the column at the right.

ADVANTAGES OF THE EDISON ALKALINE BATTERY IN RAILWAY-CAR SERVICE

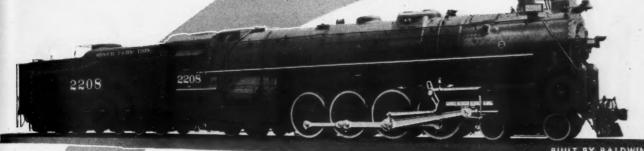
- ★ It is light in weight. It is easy to handle, and helps keep total car weight at a minimum.
- ★ It is durable mechanically. High strength steel construction is used in the containers, grids, pole pieces, etc. The electrolyte is a preservative of steel.
- ★ It is foolproof electrically. It withstands the overcharging and overdischarging inherent in railway-car service. It is not injured by accidental charging in reverse.
- ★ It can be charged rapidly, It is not subject to finishrate limitations. It requires no equalizing.
- ★ It withstands temperature extremes. It is not damaged by freezing. Free air spaces on all sides of all cells provide ventilation for rapid cooling under high temperature conditions.
- ★ It is simple to maintain. Merely charge adequately. add pure water, keep clean and dry.
- ★ Its tray assembly and cell connections are extremely simple.
- ★ Its life is so long that its annual depreciation cost is lower than that of any other type of storage battery.

EDISON STORAGE BATTERY DIVISION, THOMAS A. EDISON, INCORPORATED, WEST ORANGE, NEW JERSEY



The Light Weight Battery * for Light Weight Cars

Modern Steam Power For Missouri Pacific



Equipped with these COMMONWEALTH DEVICES

Locomotive Beds

Boxpok Wheels

Pilot Beams

4-Wheel Engine Trucks

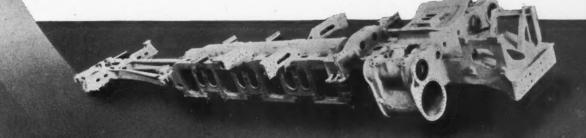
4-Wheel Trailer Trucks

Waterbottom Tender Frames

6-Wheel Swing-Motion Type Tender Trucks

ESIGNED to haul maximum tonnage freight trains at high speeds, these 15 new heavy-duty 4-8-4 type locomotives with 73" diameter drivers and tractive force of 67,200 lbs. are extensively equipped with **COMMONWEALTH One-Piece Cast Steel Products.**

COMMONWEALTH DEVICES not only simplify locomotive design and construction, but they are your assurance of greater locomotive availability, reduced shopping and maintenance expense, and more useful miles of active service.





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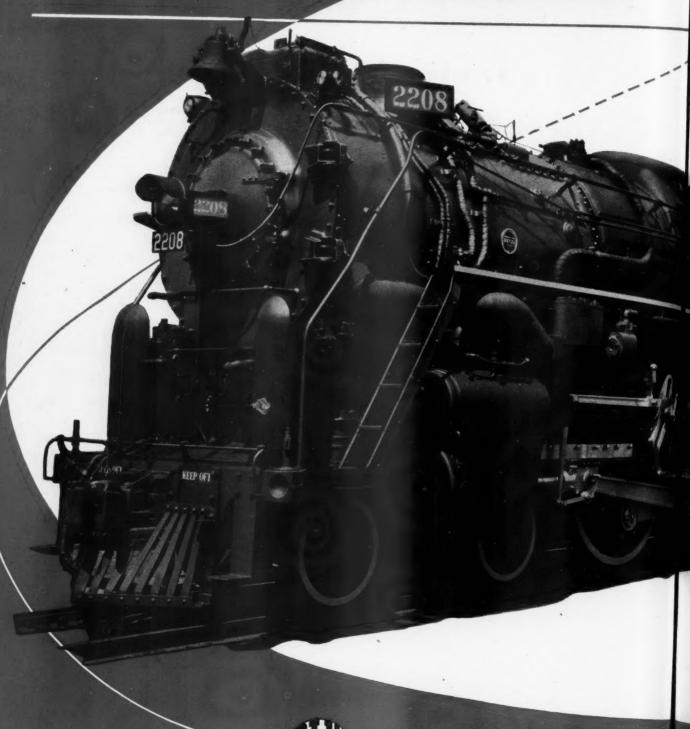
RSEY

GENERAL STEEL CASTINGS

Eddystone, Pa.

Granite City, III.

FREIGHT LOCOMOTIVES FOR MISSOURI Pacific





BALDWIN SERVES THE NA

Fifteen of these modern 4-8-4 type freight locomotives were delivered to the Missouri Pacific Railroad Company in 1943. They are now hard at work helping to serve thousands of vital industrial and military establishments located in nine states along Missouri Pacific Lines.

Modern steam power, designed for a specific service, is one of the reasons why the American railroads, in 1943, were able to haul almost 80 per cent more freight than they did in 1918 (peak year of World War I) and do it with one-third fewer locomotives. The Baldwin Locomotive Works, Locomotive and Ordnance Division, Philadelphia, Penna., U. S. A. Offices: Philadelphia, New York, Chicago, Washington, Boston, Cleveland, St. Louis, San Francisco, Houston.

BALDWIN PRODUCTS FOR THE RAILROADS

Steam, diesel-electric and electric locomotives, Diesel engines, Hydraulic presses, Special railroad shop equipment, Testing machines and instruments, Steel tires and rolled steel wheels, Crane wheels, Connecting rods and other steel forgings, Steel castings, Springs, Metal plate fabrication, Boilers, Non-ferrous castings, Bending rolls, Plate planers, Dynamometer car

BALDWIN

FOR THE HEAVY PULL

This Year Demands The Utmost

IN LOCOMOTIVE



FLANNERY BOLT COMPANY

BRIDGEVILLE

*

PENNSYLVANIA



Keeping Them Rolling— Our Job Yesterday, TODAY and Tomorrow!



FOR over 67 years our Engineering, Research, Production and Sales Departments have collaborated in constantly improving the design and production of Griffin Chilled Tread Wheels.

12 GRIFFIN Plants are strategically located at important railroad centers to assure shortest haul of new and scrap wheels.

Keep the Cars Rolling on
Griffin Chilled Wheels

GRIFFIN WHEEL COMPANY

410 NORTH MICHIGAN AVE., CHICAGO, ILL.

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Denver

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DENVER & RIO GRANDE WESTERN



FORGINGS BY STANDARD COUNT IN THE LONG RUN

To speed heavy freight loads over steep grades on time-slashing schedules requires locomotives that are engineered to withstand such gruelling service. Every single part must carry its share of the burden without fail.

The dependable high quality of steel forgings by Standard is responsible in great measure for the splendid record of availability being established by this outstanding equipment. The Baldwin Locomotive Works, Standard Steel Works Division, Burnham, Pa., U.S.A. OFFICES: Philadelphia, New York, Chicago, Washington, Boston, Cleveland, St. Louis, San Francisco, Houston.





FORGINGS · ROLLED WHEELS · TIRES · CASTINGS · SPRINGS



ALERT TO ANY EMERGENCY

Though their numbers are relatively small, their friends are legion . . . which is just another way of saying that the nation's foremost fire departments depend upon genuine Bendix-Westinghouse Air Brakes for that quick, positive stop and smooth, effortless, balanced braking over the entire speed range * Bendix-Westinghouse congratulates those authorities of city, state, and nation who have recognized the pertinent fact that the world's most effective safety campaign begins right in City Hall and whose safety records with Bendix-Westinghouse equipped units vindicate their excellent judgment * Certainly, nowhere could brake performance be

placed to a more grueling test than in this colorful service which was among the very first to adopt Air Brakes... And no finer tribute to the success of genuine Bendix-Westinghouse Equipment than the fact that it has since been continually specified as standard by the country's leading cities and towns for fire and other emergency vehicles * We urge you to consult your local distributor or write us direct for information relative to the many exclusive advantages this Safety Standard of the World holds for you.

BENDIX-WESTINGHOUSE AUTOMOTIVE AIR BRAKE COMPANY . . . ELYRIA, OHIO



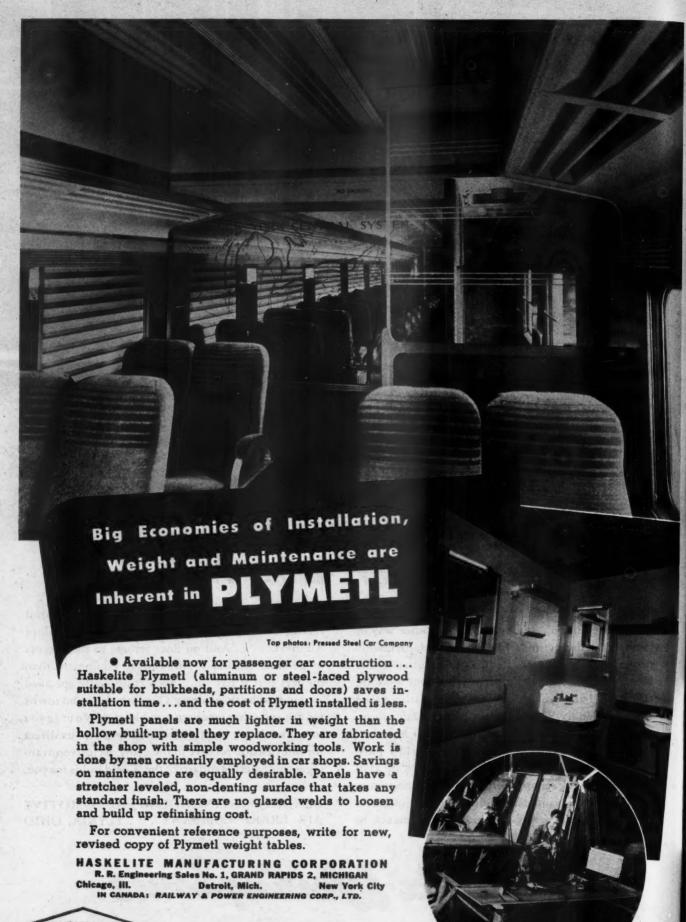
AIR BRAKES

AND PNEUMATIC CONTROL DEVICES

T IS SIGNIFICANT THAT AMERICA'S FINEST MOTOR TRUCK FLEETS ARE EQUIPPED WITH BENDIX-WESTINGHOUSE AIR BRAKES

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HASKELITE

PLYMETL

SPEED! . TOMORROW'S THE TRUCK FOR TODAY'S NEED . .





O SPRING PLATES IO SPRING PLANKS

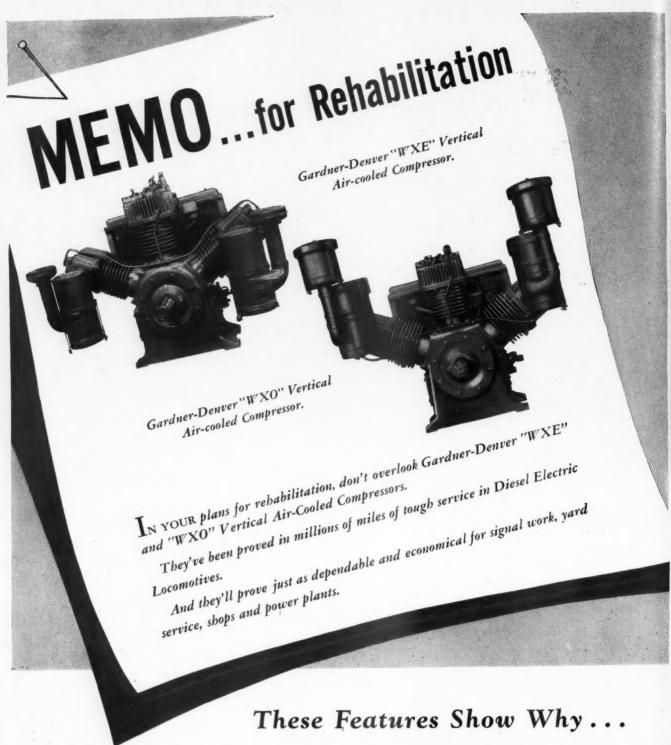
COIL springs give a smooth, easy ride with the A. S. F. Ride-Control Truck (A-3). They develop their best riding qualities because the slight amount of friction that controls them adds no apparent stiffness to the spring group-does not perceptibly interfere with its travel and softness when absorbing impact-does not materially affect its cushioning qualities. It does enable coil springs to develop their best riding qualities.

A safe truck for high-speed operation, yet the Ride-Control Truck is in the price and weight range of conventional freightcar trucks.

AMERICAN STEEL FOUNDRIES

CHICAGO

MINT-MARK OF FINE SAST STEEL



- Castings of wear-defying GarDurloy assure extra strength and hardness—cylinder bore protected by heavy-duty oil-bath air filters.
- Heavy circumferential cooling fins eliminate cylinder distortion—provide extra strength and cooling surface.
- Quiet, durable "air-cushioned" plate type valves assure no wasted air through leakage.
- Pressure control is accurate and reliable.

- Drop-forged alloy steel crankshaft and connecting rods assure long life.
- Crankshaft mounted on Timken tapered roller main bearings.

For complete information on this compressor that can help you rehabilitate to meet postwar competition, write Gardner-Denver Company, Quincy, Illinois.

GARDNER-DENVER





We are ready for 194X

194X transportation will find 194X sash ready and waiting. Yes, we have been busy producing sash for military and essential civilian transport. Utilizing wartime materials and meeting wartime conditions have again proved the versatility of Edwards engineering. That same engineering has also been applied to product research for the future — to assure improvements in sash that will match improvements in transportation — sash that will be lighter . . . stronger . . . better . . . lower priced.

How soon will 194X Sash be available? 194X may be many months away... or it may come sooner than you think!

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The O. M. Edwards Co., Inc., Syracuse, N. Y.

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I FOR EVERY TYPE OF TRANSPORTATION _ ON LAND ON THE SEAS.



GET MORE OUT OF YOUR REFRIGERATOR CARS ... BY LINING THEM WITH

HAIRINSUL

ALL HAIR INSULATION FOR REFRIGERATOR CARS

• HAIRINSUL'S low thermal conductivity stops wasteful melting . . . cuts down the number of icing stops on every run

... gets stepped up cooling efficiency out of every pound of ice.

HAIRINSUL is a permanent insulation investment . . . eliminates replacement bills . . . outlives the cars it's put into . . . can even be re-used when cars get too old for service.

When you repair or rebuild refrigerator cars specify HAIRINSUL . . . the flexible all-hair insulating blanket that fits any form, resists fire and moisture, always keeps its high insulating efficiency. You can get it now!

> AMERICAN HAIR & FELT COMPANY MERCHANDISE MART, CHICAGO

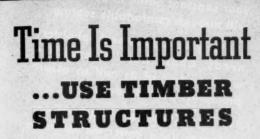
HAIRINSUL

SEND FOR SAMPLES AND

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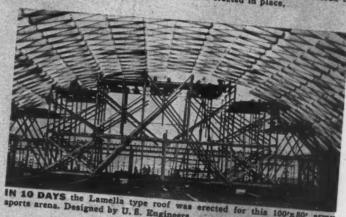
ENGINEERING

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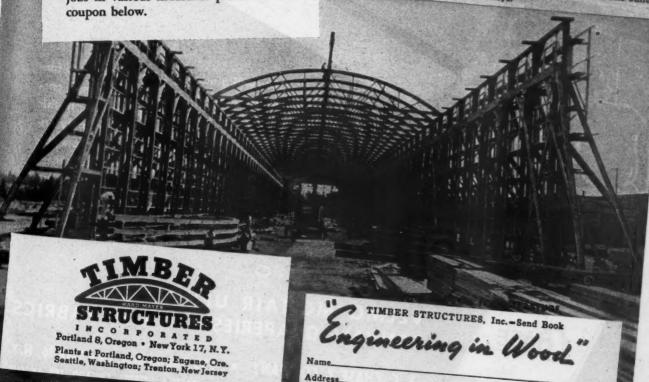


Buildings are erected quickly when you specify roof trusses by Timber Structures. Coupled with construction speed are advantages of economy, strength, permanence. This organization specializes on design, fabrication, assembly and erection of trusses and other timber items. All types of railway construction are served-bridges, engine houses, warehouses, freight and passenger stations, maintenance buildings. We welcome the opportunity of submitting suggestions on trusses of timber or allied structural materials in your projects. For illustrated book of Timber Structures jobs in various industries please use the coupon below.

ONLY FOUR 8-HOUR SHIFTS were required for the entire erection of this 240'x 130' structure. There are twelve 130' trusses, spaced columns 26' high, which with the balance of the frame structure were delivered to job site, prefabricated, then assembled and erected in place.



BY ADAPTING CUSTOMER'S EQUIPMENT already on the premises—thus cutting waste motion and expense—the 46-94 trusses on this building were erected economically in a few days.



Type of building or business

or business.

If west of the Mississippi, send to Portland 8, Oregon. If east of the Mississippi, send to 535 Fifth Avenue, New York 17, N.Y.

TH

Here's Practical Help on Upholstery Maintenance Problems

Now Chase offers two-way help in your constant battle to build goodwill through comfortable seating.

(1) For your replacement upholstery needs, Chase has "reserved" a whole section of its mill to assure prompt-us-possible delivery.

(2) And to help new and old employees do a better maintenance job Chase has just published the 16-page manual pictured here. Contains chapters on Upholstery Fibers and Fabrics, Maintenance Procedures, Spot Removal and the Chase Color-Restoration Service ("Spray Dyeing").

How to Maintain

MOHAIR RAILROAD UPHOLSTERY

We will gladly send you a copy and forward extra copies for shop and carcleaning supervisory personnel. If this function does not come immediately under your jurisdiction, why not mark this page for the attention of those concerned with "better public relations through better upholstery maintenance"?



VELMO MOHAIR UPHOLSTERY SANVALE DRAPERIES . COATED FABRICS

L. C. CHASE & COMPANY

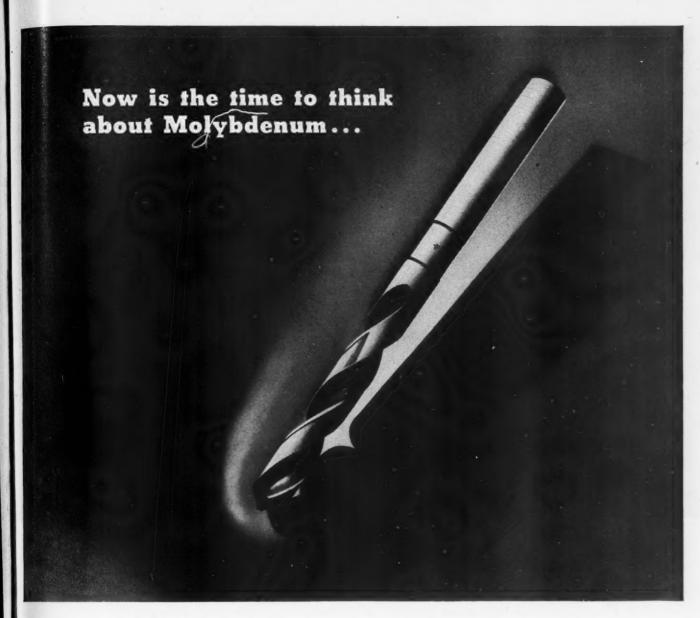
Sales Division of Sanford Mills .

 295 Fifth Avenue, New York 16, N.Y. Offices: BOSTON, DETROIT, CHICAGO, LOS ANGELES

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With both molybdenum and tungsten again available for use in high speed steel, consideration of their comparative performance is timely.

Before the war, a careful recording of comparative tests converted many users and tool makers to molybdenum high speed steel. During the tungsten shortage, when use of a high percentage of molybdenum types became mandatory, most users could not watch the performance of their tools carefully enough to draw conclusions on their respective merits.

Reports from large tool producers and users confirm that molybdenum high speed steels, when properly heat treated, perform at least as well under different kinds of shop conditions as the tungsten types which they replace.

Given equal performance on any particular type of work, an investigation of the saving in machining cost effected by molybdenum steels will prove well worth while.

CLIMAX FURNISHES AUTHORITATIVE ENGINEERING DATA ON MOLYBDENUM APPLICATIONS



MOLYBDIC OXIDE, BRIQUETTED OR CANNED .
FERROMOLYBDENUM . "CALCIUM MOLYBDATE"

Climax Molyfdenum Company 500 Fifth Avenue New York City



PAINTED FOR ELECTRONIC LABORATORIES, INC., BY BENTON CLAS

"Beach 3 Calling Fire Control 3

... pinned down by pillbox on right flank!

★ Landing parties must depend on supporting fire from ships off shore until their own artillery can get into action. By radio communication the Navy's fire is brought instantly to bear on enemy strong points holding up the advance.

When the Marines carry out the tough landing operations for which they are noted, Walkie-Talkies are among the first ashore. They must get the messages through! For unfailing power, many depend on E·L Vibrator Power Supplies.

Wherever reliability is a "must," *E·L* Vibrator Power Supplies are also proving their other advantages of light weight, small size and high efficiency. They are products of the most extensive research in vibrator power supplies and circuits ever known.

That research has extended the scope and usefulness of vibrator type power supplies beyond all previous conception. Certainly, in the electronic era of peace to come $E \cdot L$ Power Supplies will contribute new advances and economies wherever electric current must be changed in voltage, frequency or type.

Electronic ABORATORIES, INC.

E.L. ELECTRICAL PRODUCTS — Vibrator Power Supplies for Communications . . . Lighting . . . Electric Motor Operation . . . Electric, Electronic and other Equipment . . . on Land, Sea or in the Air.







NATIONAL M-17-A DRAFT GEAR

223/8" long

A.A.R. Approved

NATIONAL M-50-B DRAFT GEAR 201/8" long
A.A.R. Approved



NATIONAL RAILWAY EQUIPMENT Since 1875



NATIONAL K-4 DRAFT GEAR
Designed especially to meet the requirements of high speed passenger service.

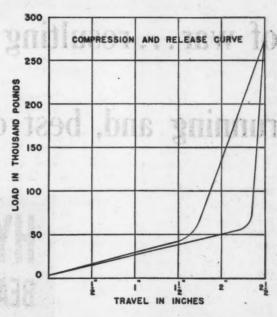


Heavier loads, longer trains and higher speeds make new demands on every item of freight car equipment.

Draft gears especially must be able to stand terrific punishment if they are to provide proper protection to the car and its contents.

NATIONAL FRICTION DRAFT GEARS

are designed to meet these extreme conditions.

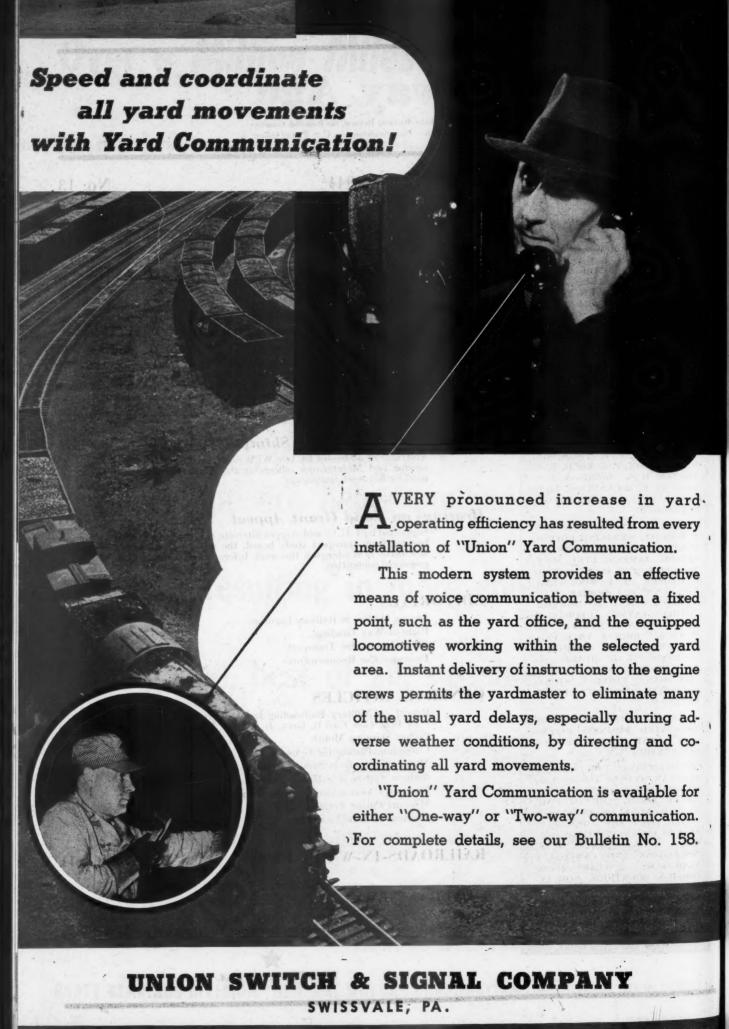


Closure chart for Type K-4 Gears

NATIONAL MALLEABLE AND STEEL CASTINGS CO.

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The Week at a Glance

EARNINGS DECLINE: Beginning last June and continuing ever since, railway net earnings have been lower each month than in the comparable month of the previous year. Moreover, the decrease is getting bigger. The leading editorial suggests that this unfavorable trend is not arousing the concern it merits. Everybody got so used to rising earnings (in 4% years of this pleasant experience) that it is a little hard to shake off the habit of feeling prosperous-but the figures can afford no comfort to the alert and knowing. The railroads will have a big job of rehabilitation to do when the war is over, and their rich uncle won't dish out to them a present of \$3 billions of taxpayers' money (which the highway lobby modestly requests, and seems likely to get) -nor even a paltry \$420 millions the waterway lobby is hopefully seeking. If the railroads don't get the money from earnings to lay away now, when the war is over they won't have itand modernization and rehabilitation will proportionately suffer.

A IOB, BUT NO TOOLS: Not in a generation have so many people realized so fully that neither they nor the nation can get along without efficient railway service. They appreciate this as a necessary goal of public policy-but they seem mighty slow to embrace the only *means* by which this goal can be achieved. They give the railroads a job to do, but not the tools to do it with. These tools, unless the railroads are to be socialized by gifts of federal funds, consist of railway earnings large and dependable enough to attract generous and continued private investments. So what is done?—fantastic sums of federal funds are planned for expenditures on other agencies of transportation as a free gift. An editorial herein observes that transport costs in this country are being increasingly communized-i. e., put upon the whole community in taxes rather than made a direct charge on users. How much longer can the railways continue to be the only usersupported transport agency, if there is to be no limit whatever to tax money spent to develop facilities for other agencies?

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YARD LOUD SPEAKERS: We refer, not to human beings, but to a modern "public address system," which the Illinois Central is using effectively in a hump yard, to convey instructions to employees—an installation described and illustrated herein. The kind of effective information which this system gets to the firing line instantaneously is revealed in the report, which suggests that the mechanism might prove useful in many similar railroad situations.

FROM GENERAL CARL GRAY: The leading article in this issue, beginning page 590, is an illustrated report to American railroaders from the Director General of the Military Railway Service in the Mediterranean area. Brigadier General Carl R. Gray, Jr., writing from Italy, in this interesting and revelatory account, discloses, we believe, more real facts about the railway job the M. R. S. has been up against over there (and has licked) than

has ever before appeared in print. He tells what outfits are with him and says how glad they all are to hear what a good job of railroading is being done at home. He adds, with his habitual modesty, that the boys over there are holding up their end, too. And how!—is the thought which will come to every reader of this report.

LAND-GRANT REPEAL: The voice in favor of repeal of land-grant rates turns out to be practically unanimous-as is revealed in our report on the hearings by the House committee (in this issue) on a bill to give effect to this past-due reform. The lively danger in continuance of these rates is that it has not been judicially determined just where the dividing line exists between standard rates and these greatly-reduced ones-which puts the carriers' present revenues in jeopardy of loss of revenue, presently being considered (and heavily taxed) as net income. Meantime the B. I. R. has come along and shown that the railroads have a great deal more than paid back the value of their land grants-not just at the worth of the land when donated, but at the price obtained for it when sold. This repealer was almost enacted two years ago, but was "blitzed" on the floor of the House by the Secretary of Agriculture who waited till that stage had been reached before he did his objecting.

LECTURE ON COLOR BAN: Malcolm Ross-chairman of the President's non-statutory "court" trying cases involving alleged racial discrimination by employers —has defended his power (as reported in our news pages) to issue "directives" against continuance of discriminatory practices. The Smith committee in the House is making inquiry into "acts of executive agencies beyond the scope of their authority" and Sidney Alderman of the Southern Railway has cited the acts of Malcolm Ross and his colleagues to these legislators. Ross' defense is a 34-page effort to answer the Alderman indictment, plus some more of his own doctrine on enforcing equal treatment of all persons without regard to the pigmentation of the epidermis. The late Joseph B. Eastman once defined a "directive" as "an order issued by a body without legal power to issue orders.

MATERIALS—DETAILED VIEW: Just what present conditions and outlook are in the supply of rail, ties, various lumber items, work equipment, building products, bridge members, water service equipment and chemicals, and other commodities used by roadway and structures maintainers—such is the inescapable subject gone into by a number of A. R. E. A. speakers in addresses reported in an article in this issue.

M. P. FREIGHT 4-8-4'S: 15 new high-speed locomotives to pull Missouri Pacific's symbol freight trains between St. Louis and Kansas City are described in an illustrated article herein. Total engine weight, 248 tons; tractive force, 67,200 lb.; 73-in. drivers; tender capacity, 20 tons and 20,000 gals.; boiler pressure, 285 lb.

EASTMAN'S FINAL WORD: Out of the richness of his thoughtful, observant, and conscientious experience as a governmental administrative official. Commissioner Eastman left a legacy of wisdom for guidance in the behavior of administrative tribunals, the qualifications of their members, and treatment due them from other branches of government. The "will" by which he devised this legacy was the "primer" on administrative tribunals which he presented at the practitioners' dinner two days before he went to the hospital. This "primer" is reproduced in full in this issue-and your reporter ventures the prediction that it may before long be accepted as a classic in the dynamic and chaotic field where it sheds so much badly needed light.

A GUIDE TO BEHAVIOR: Zealots have their place before administrative tribunals, but not on them. The courts err when they approve administrative findings not supported by substantial evidence. These tribunals should in their decisions succinctly state the facts and the reasons which lead them to their conclusions-and it is unsafe for them to reach decisions without full hearing and argument. Members need to be men of sufficient courage to make decisions, when the facts so require, which will incur the displeasure of groups exercising dominant political power. Members need not be technical experts on the subjects with which they deal-but they need the ability to comprehend quickly and accurately, to reason logically, and to proceed to conclusions without external influence. Such are among Mr. Eastman's profound final admonitions.

"PERFECT SHIPPING": E. A. Jack is again serving as chairman of this effective annual April effort by carriers and customers to pull themselves up to a yet higher level of transportation performance and efficiency. A short article herein relates how the campaign is organized, who its regional chairmen are—with witness from officials of war agencies on the importance which they impute to this effort.

BETTER COAL-UP EARLY: This is the admonition of the O. D. T. to midwest coal users, following advice from the Solid Fuels Administration that the shortage of bituminous coal in the 1944-45 season may run as high as 20 million tons. The Lakes season will open early and that will help.

MRS. R.—RAILROAD LOCATOR: It is noted that the esteemed and muchtraveled "first lady" has written in her daily newspaper column to the effect that they locate their railroads in Brazil much more intelligently than we unimaginative North Americans do—namely, they put them back in the mountains where nobody can see them; while we foolishly allow them to clutter up our river valleys. So far, as we go to press, no governmental "directive" has yet issued requiring the relocation of the nation's railroads to give effect to this reform.



Another Triple-GM DIESEL SERVICE



THE Burlington, which in 1934, introduced the "Pioneer Zephyr," America's first Diesel-powered streamlined train, recently placed in service the first four of sixteen General Motors 5400 H.P. Diesel Freight Locomotives. Acquired to meet present wartime demands and to "streamline" freight service in the postwar period, the sixteen freight Diesels, in addition to the GM Diesels now operating in switching and passenger service, will give the Burlington a Diesel triple service of 134 power units totalling 164,600 horsepower.



* LET'S ALL BACK THE ATTACK - BUY MORE WAR BONDS *

ELECTRO-MOTIVE DIVISION

GENERAL MOTORS CORPORATION

LA GRANGE, ILLINOIS, U.S.A.

RAILWAY AGE

Serious Decline in Railway Earnings

Beginning with June of last year, and persisting ever since, railway net earnings (net railway operating income, i.e., net after taxes but before fixed charges) have declined below those of the same months in the preceding year. The rate of decline, moreover, is mounting. In June, 1943, the reduction was 8 per cent; in July 10 per cent; and 8 per cent again in August. In September, net earnings tobogganed to 28 per cent under the preceding year; in October the reduction was 39 per cent; in November 25 per cent; in December 55 percent; and in January, 1944, 21 per cent.

Thus has been reversed a trend of rising net earnings which had persisted for 4 2/3 years—continuously from October, 1938, until May, 1943, with only three unimportant exceptions. It is doubtful whether this untoward development has aroused the public concern that it merits. The decline in earnings is the more disturbing because it has come in the face of a continued increase in gross revenues—which with only one insignificant exception have risen each month since November, 1938, up to January of this year, the latest period for which statistics are available. The decrease in net earnings, despite continued increases in gross, has been brought about by disproportionate increases in operating expenses (especially wages) and taxes; and by a reduction in freight rates ordered by the Interstate Commerce Commission at the insistence of the Office of Price Administration, effective last May.

Despite their declining net earnings, the railroads earned a not unsatisfactory \$1,360 millions of net railway operating income in 1943—a little more than 5 per cent on the property investment—but, if their expenses, taxes and freight rates had been at the same level throughout the year as that obtaining in the last half of it, net earnings would not have been adequate or reasonable for such a period of intensive utilization of railroad plant.

Experience during the 'Thirties amply demonstrated there is no way by which the railroads can, in a time of business inactivity, earn a return adequate to attract the new capital necessary to keep their facilities apace with the needs of industry and national defense, in times of maximum demand. The railroads were able to deal with the present magnitude of war traffic—not because of the capital invested in them in the 'Thirties, when their net investment actually diminished—but because of plant that they still had left over from the 'Twenties, when earnings were sufficient to maintain a constant inflow of new capital.

In January of the current year, net railway operating income was 21 per cent less than in January, 1943. Should this ratio persist throughout the year, 1944's net earnings would be only a little over \$1 billion. If the railways are allowed to earn only one billion when their gross is over \$9 billions, just how much net can they look forward to when and if, for example, their gross may decline to the \$5.3 billions, which was the 1941 figure?

The question of maintaining railroad earnings at a level high enough to attract investment capital is a matter of national importance, in the safeguarding of a supply of necessary transportation for the service of industry and the national defense. Unless the government takes to furnishing railroads' capital needs out of the public Treasury—as it does for other agencies which can serve economically only a minor proportion of the nation's total transportation requirements—the only way in which the railroads can be kept apace with demands upon them is by allowing them earnings attractive to private investors.





Right-of-Way Grading

The large amount of grading that has been done on the right-of-way in recent years by an increasing number of roads by means of modern, off-track equipment, has raised a question in the minds of some uninformed persons, both on and off the railways. Why all of this work, ostensibly to improve appearance, and especially in times like these? Maintenance of way men can answer this question convincingly, but apparently they have not in all cases, because the question still stands unanswered in the minds of some people.

It is true that much of the grading work that has been done on the right-of-way has smoothed up rough ground and improved appearances generally, but if these were the only advantages to be gained, this work would hold little interest for maintenance men who have many more important things to do at any time, and especially now. There are several important reasons for this work, primary among which is improved drainage of cuts, fills, and the right-of-way generally—in an effort to free the track of its worst natural enemy—water. Another reason is to strengthen weak or unstable embankments, which were originally built either too narrow for today's loads, or have eroded over the years.

These two reasons alone are sufficient to justify much of the work that is being done, especially in adding stability to a track structure that is receiving the worst punishment in history, and is now often deprived of the necessary replacement rail, track fastenings, ties, and ballast, because of shortages in these materials or shortages in the labor necessary to apply them.

But if these are the principal reasons, why does the grading extend out to the right-of-way fence in some instances? The answer certainly is not to present a parkway appearance to passengers at a time when maintenance officers have long avoided frills of any kind, including some which have merit in stimulating the morale of employees in carrying work to a neat-appearing finish. The answer is, rather, that in the widening of cuts for adequate drainage, and often sloping them back to prevent the accumulation of drifting snow, the surplus material removed can be disposed of most conveniently, effectively and economically in smoothing up the right-of-way, filling old borrow pits that collect and hold water, and sloping the ground generally away from the track structure.

In northern climates, the snow drift avoidance feature is sufficient alone to justify much of this grading, since some roads, through this work, have eliminated the maintenance of thousands of feet of snow fences, and have avoided drifts which formerly required the repeated employment of plows, flangers and thousands of man-hours throughout the winter. Added to this, however, and of vital importance, is the factor of simplifying the control of vegetation, leveling the ground to permit the employment of modern, off-track power mowers. The control of this growth is not only

desirable from the standpoint of avoiding fire hazard; it is mandatory in many parts of the country under local laws designed to prevent the spread of noxious weeds. Each power mower on suitable terrain will, conservatively, do the work of at least ten men with scythes and brush hooks—and those roads are fortunate that can take advantage of such economies in the use of labor in these days.

Right-of-way leveling is not boondoggling. It is one of the most essential phases of adequate, economical track maintenance, and is certain to be continued during the months ahead to the limit of the equipment available. Furthermore, it is equally certain that this work will be continued on an expanded scale in the immediate postwar period. To help avoid further misunderstanding concerning this work in the future, it might be well to term it right-of-way drainage and snow and weed control work, rather than right-of-way grading, a designation which invites misunderstanding.

Why Communize Transport?

New York's Park Commissioner Robert Moses has urged passage of the House roads' committee bill calling for \$3 billions of federal money to be spent on highway improvements immediately following the war at an increased ratio of federal participation in total costs—the project discussed in *Railway Age* of March 4, pages 448 and 454. Meantime, in New York an argument has developed between the city and state governments as to who is going to pay for the ambitious program of urban superhighways that Commissioner Moses has prepared.

It never seems to occur to anybody that there is no necessity or excuse for burdening taxpayers (with a war to pay for) with the cost of such "super" roads. They can be built without net cost to anybody. That is, put up toll houses on them and collect from the users compensation for a fraction of the savings which "super" facilities bring to them in time, in fuel, and in vehicle wear. With the "super" stretches of especially costly construction financed by the willing contributions of users who save more from using these facilities than the tolls they pay, the regular motor vehicle fees should cover all other necessary highway expenditures, without any contributions whatever from general taxes.

There is also going on in New York an argument about the rate of fare on the city-owned rapid transit lines—where the customer now pays a nickel for a ride which costs nearer a dime to provide. Proponents of a fare increase argue with great cogency that rapid transit is not a service which, on principle, should be paid for, even in part, by taxes on real estate. These partisans of self-supporting subways, however, fail to complain at the even greater departure from sound principle in the practice of not charging users of superhighways in the city area one cent for the costly facilities provided for their special convenience. It is



deemed, quite correctly, an economic injustice that city taxpayers provide a 10-cent subway ride for a nickel—but, with naive inconsistency, quite all right that taxpayers provide free of charge a superhighway, worth from a dime to a quarter for each use; and which isolated experiments here and there show the user will gladly pay.

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Communization of costs (i.e., everybody, and not just the users, paying,) is making rapid progress in the transportation industry. It is complete in the case of improved inland waterways (that is, taxpayers foot all the bills-the users, none). It is partial but growing in highway transportation (the users paying directly a part of the costs, but with political insistence that a higher ratio be saddled on the federal treasury). Costs of air transportation are, also, communized in part, with a current political build-up for increasing the communized proportion. Urban transit costs are largely communized in New York in the case of rapid transit facilities, and the development is progressing in other localities, as toll-free superhighways become the growing reliance for transit.

Partisans of such communization of transport costs are always able to present plausible casuistry to justify their particular pet as a "special case"—an exception to the sound capitalist principle of providing economic services only where users want them enough to pay their full costs. Thus, communization of the economy advances—as political expediency requires that favors to one interested group be matched by similar favors to others. When the epidemic progresses to the point that costs of vehicles and fuel, and not just the highways, begin similarly to be communized, possibly some of the present initiators of the development will wish that they had not shoved the camel's head under the tent as they are now doing.

Passenger-Car Requirements

Human nature reacts in no uncertain way to emergencies which require unusual exertion and effort. There comes a time, however, when such emergencies may be so prolonged that human endurance is worn down and becomes exhausted. The railroads have for many months been subjected to unusual demands—demands far beyond normal performances—and this has required every bit of effort and ingenuity that could be summoned to bear upon the problem. This is particularly true of those who are concerned with the conditioning and repair of the equipment.

The War Production Board decided that materials could not be spared for the building of new passenger equipment, despite the rapid increase in essential traffic due to war conditions. It has, therefore, become necessary to go the very limit in squeezing the maximum of passenger-miles from every unit of equipment. The objective has been to keep it rolling as continuously as possible and remarkable records have been made in that respect. True, the passenger cars are suffering

"Featherbedding" Blamed on Management

What is the basic cause of "featherbedding" and of "slow-downing" by workers? It is this: The workers say to themselves, "Listen! As soon as this job is finished, we're going to get laid off and thrown into the street. So let's go slow and make the job last."

Gentlemen of management—you don't get laid off. You're part of what we call the "overhead" of a business. The "overhead" has to go on even between jobs in order to hold the business together. Doesn't it occur to you that the worker also has an "overhead?" His costs don't stop just because he is laid off.

We have to have more job security in America. We must strive to give our workers continuous employment; and, where that's impossible, we must develop a sane and sensible program for adequate unemployment insurance which will take care of the worker's "overhead" during his

times of being laid off.

Then the unions must do their part. They must abolish rules that keep a man down to doing half a man's work. You can't build a strong America on half-men. More men than are needed for the job. Each man doing less than he could do. Waste of manpower. Waste of human resources. It is a grievous wrong to the whole American economic system.

-President Eric Johnston of the Chamber of Commerce of the U. S.

in many instances because of lack of attention to their appearance, interior and exterior. Some of the older equipment, in particular, which was headed for the scrap heap and was drawn out of storage, looks rather seedy; yet the details concerned with the safe operation of these cars have been carefully attended to.

In attempting to meet these problems special attention has been given on most roads to raising the standards of supervision in the mechanical department. Whether this has been done by special or formal training courses, or by other means, it has proved most effective. In turn, it has focused attention upon the critical study of methods of handling the equipment at terminals. It is surprising what has been accomplished in many instances by more careful planning and by the rearrangement of facilities or the addition of special facilities at critical spots.

Naturally, improved supervision has stimulated greater co-operation on the part of the workers in speeding up maintenance and repair operations. There has been a distinct challenge to Yankee ingenuity. That this has been effective is indicated by a roundtable discussion on Getting More Out of Passenger Cars in the current issue of the Railway Mechanical Engineer.

There still remains, however, one big question. It would seem that the limit has been reached in most places as to what can be done with the present equipment, which, despite all the efforts to keep it in prime operating condition, is steadily deteriorating. It would appear that the War Production Board could well afford to review the entire problem of passenger traffic and give greater consideration to the needs of the railroads for additional equipment. This may prove more effective in the interests of our country in the long run than some of the other priorities which now exist.

Report on Military Railroading in

War Zone

By Brig. Gen. Carl R. Gray, Jr.

Director General, Military Railway Service

To You "RAILS" FROM Us Cheminots AND Ferrovieries:

POR some time the Editors of Railway Age have been requesting that there be sent word of greeting to the railroad men back home from their representatives in the Mediterranean area. For some time the American railroad men in that Mediterranean area have wanted to express to the railroad men back home their appreciation of and satisfaction with the type of railroad job they have done and to give them a brief account of their stewardship in foreign lands.

The Director General therefore takes advantage of the invitation, and the desire, and submits herewith a brief statement of our work in the Military Railway Service, Transportation Corps, U. S. Army, in that area which lies on two sides of the Mediterranean Sea.

First, it is our belief that only in America could freight trains run 56 per cent faster and carry 40 per cent more tons than they did in 1920 and only in America could 55 per cent more freight be handled than in World War I, with a half million fewer freight cars and with 22,000 fewer locomotives. Only in America could a rail transportation system absorb the tremendous amount of additional passenger business occasioned by gasoline and rubber shortages, and then satisfactorily handle in addition to that some two million soldiers and sailors a month. One is staggered by the fact that recently in America, 23,578 American freight trains with 1,408,964 cars of freight pulled out of terminal stations in a 24 hour period, or that 59 cars were moved out every four seconds.

(Before) The Main Station at Naples Looked Like This When the Military Railway Service Found It—the Chaos Having Been Caused by Allied Bombing and Thoroughgoing German Demolition





Brig. Gen. Carl R. Gray, Jr., (Extreme Right) Director General of the Military Railway Service, Confers with (Left to right): Lt. Gen. Sir Humphrey Gale (British), Then Chief Administrative Officer Allied Force Headquarters; General de Corps d'Armee Poupinel, at the Time Chief of the North African Military Railway Services for France; and Maj. Gen. (British) L. G. Lewis, AFHQ Assistant Chief of Staff for Supply

I think we railroad men can modestly accept one compliment that has been passed to the American railroad industry, namely, that "American railroads are doing the greatest single job of the war." We American railroad men in North Africa and Italy recognize and are proud of the achievement of our fellow railroad workers back home, and express our profound admiration of, and sincerest congratulations to you all for the remarkable job of rail transportation that you are performing. However, we would like you to know, as we believe you will be interested in knowing, some of the things that we, as your representatives, have done and are having to do in North Africa and Italy.

(After) Same View as at Left—Wreckage Having Been Cleared—a Freight Train Stands on the Siding on the Upper Level and Another Train Runs in the Tunnel Where the Battered Cars Were Before



Mediterranean



(Above) Bomb-Wrecked Tunisian Railway Shop in May, 1943—(Below) Another View of the Same Shop Which the Military Railway Service Had to Put in Order Before It Could Get the Railroads Running at Top Speed Again



There are over a million of you at home while there are about 6,000 of us here. You have the advantage of a double, triple and four track railroad; low grades, heavy power, big cars, air brakes, automatic-signals and train controls, adequate roundhouse and terminal facilities, and above all, you operate in the "Land of the Free and the Home of the Brave" where you all speak a good understandable American language.

What Africa Was Like

But what about us? Well, let's take North Africa first: We were stretched across the North coast of that continent with a rather excellent roadbed of single track; with small main terminals, inadequate and insufficient passing and operating tracks at intermediate stations; with cars that remind one of "cracker boxes"; with trains operated, not with air brake control, but by sleepy Arab brakemen; with no signals worth the name; no headlights on our engines; no modern coal and water facilities; and through many tunnels and over grades of 2½ and 3 per cent. Until you all sent us some good American 2-8-0 locomotives, we had the most unbelievably inadequate and obsolete power that it has ever been a man's misfortune to have to run, or it should be said, try to run.

In addition to these physical disabilities, we are confronted with an operating procedure that is as far apart from ours as is the North pole from the South. The dispatching system does not contemplate a good old American train dispatcher actually directing the movement of and ordering meets for trains, but places the whole responsibility on the "Chef de Gare" (station master) who tries to operate on a station-to-station block system for train movement. Since these operating rules will not mix any better than oil and water, we have either had to adapt ourselves to their ways, or take over the line in its entirety and operate it under standard rules and practices.

American Operating Methods Worked Wonders

We did take over for American type of operations a 122-mile division and, when we received American Mikado power, and placed American personnel with American operating rules on that division, we really had something. This line was an extremely important link in a heavy army supply line and the volume of traffic moved over it rose by leaps and bounds, but never for a moment did any of us ever feel that we had touched the capacity

(Left) An Entirely Novel and Bothersome Method of Wrecking Was Used by the Germans in Their Retreat Northward in Italy—A Diabolical Machine with a Big Hook on It Not Only Cut Each Tie in Half, but Automatically Laid Demolition Charges Under the Rails at Regular Intervals

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(Right) A Military Railway Service Gang Puts
Spur into an Allied Supply Installation in North Africa











(Right) A Big Demolition Charge Took Out the Whole Front End of This Italian Locomotive—a Fair Sample of the Wrecks Left Behind by the Nazis (Below) An Italian Yard as the Nazis Left It—There Was an Endless Clean-up Job to Do



(Top) a Military Railway Service Shop Battalion in North Africa Assembles a Meter-Gage "GI" Locomotive Shipped Over from the States—These All-Purpose Units Are Built by Several American Locomotive Manufacturers to the Same Specifications

(Below) A M.R.S. Mechanical Erecting Detachment Assembles in North Africa Cars from the States—Note European-Type Couplers

of that line when we could operate it American fashion, Briefly, the story of the American railroad man's participation in the campaign of North Africa starts with the arrival of the Western Task Force which landed at Casablanca on November 8, 1942. In that Force, there was an advance echelon of twelve officers and men of the Railway Grand Division Headquarters which had then been chosen to furnish rail transportation for the American Army in its African campaign. Simultaneously with that, there was a U. S. Railway Transportation Company sent down from England which landed at Oran at the same time. At Casablanca and Oran these few American railroad men immediately began to organize the French railroad men for handling military stores as the invasion troops pushed on from the ports. Coupled with some British Transportation troops, which landed at Algiers later on November 13, 1942, they formed the beginning of the Transportation Corps' Military Railway Service in North Africa.

Americans Who Were in Africa

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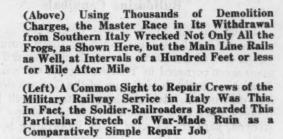
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The original Railway Grand Division which was nominated for this task was that made up of the Railway Grand Division Headquarters and Headquarters Company affiliated with the Atlantic Coast Line R. R. and commanded by Colonel Clarence L. Burpee, general superintendent, A. C. L., Jacksonville, Fla.; the 727th Railway Operating Battalion, affiliated with the Southern Railway and commanded by Lt. Colonel Frederick W. Okie, superintendent of the Southern, Birmingham, Ala.; the Railway Operating Battalion affiliated with the Santa Fe and commanded by, first, Lt. Colonel C. D. Notgrass, superintendent of the Santa Fe, Newton, Kan., and later by Lt. Colonel E. E. Foulks, who came over as the assistant superintendent, and who is a Santa Fe superintendent from Winslow, Ariz.; and the Railway Shop Battalion affiliated with the Big Four and New









York Central and commanded by Lt. Colonel J. J. Daugherty, general shop foreman from the Southern Pacific at Houston, Tex. This Railway Grand Division was stretched out along the French State-owned railways at strategic points, and augmented the civilian manpower of the railways in order that the ever-increasing supply of military stores could be moved from the ports to where they could be used by the armies, which were at that time pushing the Germans and Italians into Tunisia. The flow of traffic, therefore, was eastward and the density was decidedly in that direction.

As the American locomotives and freight cars began to arrive, the ability of the railroads grew proportionately to the receipt of that equipment and to the arrival of additional Military Railway Service troops.

More Arrivals from the States

The Director General, with a carefully selected small group of officers and enlisted men, arrived early in February and was designated as being "responsible for the technical development and operation for military purposes of all railways in the North African theater." During the middle of May, the following troops arrived: The Railway Grand Division Headquarters and Headquarters Company affiliated with the New York Central and commanded by Lt. Colonel, now Colonel, James E. Guilfoyle, superintendent of New York Central at Buffalo, N. Y.; the Railway Grand Division Headquarters and Headquarters Company affiliated with the Great Northern and commanded by Colonel Alexander W. Campbell, assistant superintendent of transportation of the Great

Northern at St. Paul, Minn.; the Railway Operating Battalion affiliated with the Illinois Central, commanded by Lt. Colonel Thomas P. Crymes, superintendent of the Illinois Central at Memphis, Tenn.; the Railway Operating Battalion affiliated with the Texas & New Orleans (Southern Pacific System), commanded by Lt. Colonel Robert F. Williams, superintendent of the T. & N. O. at Houston, Tex.; and the Railway Operating Battalion affiliated with the Missouri Pacific and commanded by Lt. Colonel Ernest M. Price, superintendent of the Northern Pacific, at Tacoma, Wash.

The battle of Tunisia having been won, plans of the Commander-in-Chief for future conquests began to have their effect upon Military Railway Service operations and in the plans there was included among the troops, the 727th Railway Operating Battalion which supported the Seventh Army in its conquest of the Central and West portions of Sicily. Once again, that job having been concluded, arrangements were made for the invasion of the continent via the mainland of Italy and the original Railway Grand Division was again chosen to be the supporting railway troops to General Clark's Fifth Army. With the movement of the war shifting from Africa to Italy came the reduction in the tons of military freight handled on the North African Railways, which permitted the Director General to shift his forces from North Africa to the mainland of Italy.

It would be unfair to all if the co-operation, collabora-

(Left) In Italy
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Was Left of a
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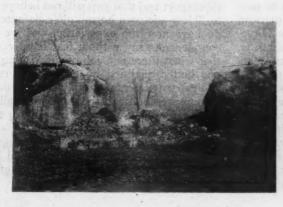
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tion and assistance of the British Transportation Service in North Africa were not made a part of this report. As indicated in the beginning, the British Transportation forces came ashore at Algiers in mid-November. They consisted of a Railway Operating Group Headquarters corresponding to our Railway Grand Division Headquarters, and Railway Operating Company corresponding as nearly as possible to our Railway Operating Battalions. They also had Railway Construction and Maintenance Groups and Companies. These British troops were placed at the disposal of the Director General and so the manpower utilized was French civilian, American Military Railway Service troops, and British Transportation troops in the North African theater.

Bulldozing Cannibals

There was not much serious destruction of the railroads nor of the facilities such as shops, roundhouses, vards, etc., of the North African Railways until the Germans were cornered in Tunisia, but the Chemins de Fer Tunisiens caught the full fury of the German demolitions and destruction. It's too long a story to tell here, but bridges were blown, roundhouses and shops were destroyed, yard tracks were made inoperative by blowing rails, switches and frogs, locomotives and cars were destroyed or damaged by demolition charges, then set afire. The job of repairing bridges, restoring tracks and machinery, and removing damaged locomotives and cars fell on and was accomplished by the consolidated efforts of the Maintenance of Way Companies of the Railway Operating Battalions and the Maintenance and Construction Groups and Companies of the British Army assisted by certain Engineer Corps Battalions of the American Army.

It will suffice to say that the main line was quickly but temporarily provided by shoo-flying around the demolished bridges, that bulldozers were used to shove damaged equipment off the right of way, and that "cannibalism" was used to repair tracks and buildings so that it is with pride that we realize that at no time were we unable to keep up with and supply the Army dumps with food, clothing, ammunition and gasoline and at a distance but a few miles behind the lines of combat.

In all, in the North African campaign we repaired 65 bridge structures damaged or destroyed, ranging in length from small ten-to-twelve-foot openings up to long openings of 250 feet or more. On the side and in addition, we carried on 32 projects of track facilities in the lines of communication to serve depots and dumps totaling 47 miles of track with 198 turnouts. U. S. Army Engineer troops under our supervision constructed 32 additional projects of 19 miles of track with 84 turnouts.

Here We Are in Italy

Now the tide of battle has turned to the Italian mainland and the events in its history are too current to permit a detailed account of the activities of the American and British Railway Transportation troops. The Director General is held responsible for the "rehabilitation, technical development and operation of all Italian State and privately-owned railways," and he has at his disposal American, British and Italian Railway Transportation troops and the civilian employees of the Italian State Railways. All that should be said at this time is that the rate in increase of military tons handled in this campaign far exceeds that indicated for North Africa.

It can be said, and should be said, that the American and British Railway troops are operating under greatly different conditions than they experienced in North Africa. In the first place, the enemy has carried on a far greater, more extensive and more complete destruction and demolition than he did in North Africa, but once again the American Maintenance of Way Companies and the British Maintenance and Construction Companies, with help from Engineer troops of the Armies, have shoo-flied, filled bridges or built anew; have made a single track railroad by "cannibalizing" a double-track railroad; have again used the bulldozers to shove damaged locomotives and cars off the right of way; have rebuilt yard tracks and roundhouses, repaired catenary and substations and got certain portions of the electrified sections operating with electric power; installed oil burners in locomotives, and kept the rail lines of communication again within sound of the guns on both the Fifth and Eighth Army fronts.

We have secured and enjoyed the fullest co-operation from the Italian State Railway officers and employees. Today, if you look at the battle line as you see it in your newspapers, you can be satisfied that all essential railroad lines south of that line are capable of, and where necessary are, handling vast quantities of military stores.

One of the things that I am sure you will be glad to know is that the American railroad man is not only a good railroad man, but that he likewise is a brave and fearless soldier. In the approximate fifteen months since the first railway troops landed in North Africa, there have been published orders decorating eight officers and five enlisted men with the Legion of Merit; six officers and eighteen enlisted men with the Soldier's Medal; one enlisted man with the Silver Star; and one officer was appointed an Honorary Officer of the Military Division of the Most Excellent Order of the British Empire; a total of 39 decorations.

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Wherever There Is a Job of Railroading to Do-

Back in 1906, the American railroad men formally recognized and got behind the Safety First Movement. For 38 years now we American railroad men have been practicing safety and it has brought about wonderful results in the reduction of personal and train accidents. Those of us who are over here have not forgotten those long years of education and training in safety and while our working conditions are extremely hazardous by reason of no headlights, no automatic couplers, no safety devices as we know them at home, rights-of-way littered with debris, no pilots, and a minimum of cars equipped with air brakes, we are nevertheless maintaining an excellent safety record under these adverse circumstances. As an illustration, in an eight-month period just closed, one of our Railway Operating Battalions operated 4,001 trains, handled 180,000 cars with a gross tonnage of 3,857,310 and put in 2,186 yard-days without a single train accident being charged against them.

We hope that you will not feel that we are egotistical in this report and that you will not believe that we are trying to "blow our own horn." We definitely are not, but we do have now the experience, and we likewise have the confidence to say without fear of successful contradiction that when there is a job of railroading to do, there is no one better qualified by experience, energy, enthusiasm and capacity, mental and physical, to do that job than are your representatives, the American railroad men wearing the Transportation Corps insignia in the Mediterranean area of this global war.

Again, we congratulate you upon your vast and marvelous accomplishments in the United States and humbly submit this plain statement of our effort to keep pace with you.



Perfect Shipping Month

THE importance of correct packing and shipping to the war effort will be stressed during "Perfect Shipping Month," which the National Association of Shippers Advisory Boards is sponsoring in April. A total of 25,000 shipper-members of the 13 advisory boards will participate actively in the campaign, which is in its ninth year, while the Association of American Railroads, individual railroad systems, Railway Express Agency, Inc., and motor truck and other interests will also take part. During the month, a series of local meetings, at which prominent traffic and transportation men will discuss the subject, have been scheduled in many principal cities.

E. A. Jack, general traffic manager of the Aluminum Company of America at Pittsburgh, Pa., is serving his second year as chairman of the management committee directing the drive. In addition, the committee consists of 13 shippers, of which 3 act as regional vice-chairmen. These include Southern district, C. W. Strickland, general traffic manager of the Proximity Manufacturing Co. at Greensboro, N. C.; Eastern district, H. M. Frazer, traffic manager of F. W. Woolworth & Co., at New York; and for the Pacific Coast, T. F. McCue, traffic manager of

the Crane Company at Los Angeles, Cal.

Endorsement of the 1944 campaign has been given by the late Joseph B. Eastman, director of the Office of Defense Transportation; Donald M. Nelson, chairman of the War Production Board; Jesse Jones, Secretary of Commerce; and Col. W. J. Williamson, chief of the Traffic Control division of the War Department. In addition, the War Production Board and the War Food Administration lend their support to the campaign and offer specific recommendations for reducing loss and damage. In a letter to Mr. Jack, Mr. Eastman said:

"We are entering what may prove to be the most critical phase of the war, and every shipment of freight is important in one way or another to our total war effort. There has never been a time, I am sure, when it was quite as important as it is now that damage to lading be reduced to a minimum. Every damaged shipment means wasted material, wasted man-hours, and wasted transportation.

"The volume of traffic now being carried is so great that any relaxation in our efforts toward better and still better shipping practices would be foolhardy. In view of the fact that the volume of traffic is still mounting, and no one can be absolutely sure when the leveling off will occur, such relaxation would be un-

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"The time will be required to bring this war to a successful conclusion will be determined to a considerable degree by the manner in which we use our limited transportation facilities. Thus far, our military and necessary civilian traffic has moved without serious interruption, and for this a great deal of credit belongs to the shippers and receivers of freight. I hope that the coming months will see no blemish on that record."

The observations of Mr. Nelson, Secretary Jones, and Colonel Williamson were to the same general effect.

In its report and recommendations, which follow an intensive investigation, the War Production Board points out that "one of the most critical traffic problems confronting the movement of goods is the amount of loss and damage. The demands of the war and the shortages of essential goods, as well as the necessity of conserving transportation service and packaging materials, make it imperative that wastes in the movement of such goods be minimized and that these goods now being produced become available to the ultimate consumer."

In its recommendations it offers numerous suggestions to shippers and carriers. It suggests that the Association of American Railroads undertake technical research with respect to materials and methods used in the construction and securing of bulkheads; that the A. A. R. and the American Trucking Associations undertake a campaign aimed at inducing carrier agents to exercise more rigorously their right to refuse freight that is not packed sufficiently well to provide adequate protection for the goods; and that they encourage carriers to improve the quality of supervision over the checking and storing of freight and the training of freight handlers.

Chromium Plating for Cylinder Bores

THE wear-resistant qualities of chromium have attracted attention to it as a possible material for application to cylinder bores and other bearing surfaces. Ordinary chromium applied by plating, however, is non-wetting and this lack of oil-holding quality operates against its use in pump and engine cylinders where lubricating conditions are difficult. The Van der Horst Corporation of America, Cleveland, Ohio, has originated a method of precision application of hard chromium, having a controlled porosity and smoothness which is said to give improved lubrication with a resulting lowered friction to add greatly to the operating efficiency of equipment. The reduction in wear and corrosion give long life to parts on which the "Porus-Krome" process has been applied. Wide use of the process has been made on aircraft, bus and truck, gas and Diesel-engine cylin-It can be adapted for reclaiming worn cylinders

as well as applied to new ones.

Essentially the process is one of electro-plating in which a deposit up to 0.040 in, of thickness can be applied which has controlled porosity to suit service requirements. The chrome deposit is bonded to the base metal. Precision control is necessary for maintaining tolerances in products being plated and extreme accuracy is necessary in measuring and gauging parts both before and after each operation in the manufacturing cycle. preparation calls for a mirror finish before plating after which the work piece is placed in accurately designed and constructed fixtures, with the anode precisely centered to assure a uniform deposit of chromium. The length of time in the bath is predetermined by the amount of metal to be deposited. Time and current characteristics must be calculated and controlled for each individual cylinder because of the dimensional variations in cylinders of a given bore. In the case of worn cylinders being reclaimed, even greater dimensional differences exist and must be considered.

The machining operations following plating are of critical importance. Proper honing, grinding and buffing are required to finish the cylinder to desired surface smoothness and true bore. Equally important, the manner in which these operations are performed is vital to the control of the degree of porosity needed for a given

application.

No changes in standard practices are required for determining clearances in bores which have been prepared by the Porus-Krome process. The expansion characteristics of the base metal are not changed by the chrome deposits. Similarly, no changes in ring arrangements or materials are required. The wearing-in period for cylinders and rings is still necessary but Porus-Krome is said to reduce the wearing-out rate when it is used.

Materials Supply Is Still Skimpy

Representatives of the WPB and Engineering and Maintenance officers discuss prospects, needs, and means of reducing requirements at the A. R. E. A. annual meeting

771TH the material situation still a source of serious concern to railway engineering and maintenance officers, confronted as they are with the heaviest work programs in many years to keep pace with the wear and tear of peak war-time traffic, the subject of materials held a key place in the program of the annual meeting of the American Railway Engineering Association, in Chicago on March 14-16, as was reported in the Railway

Age for March 18.

Leading off one entire afternoon session devoted to materials and related matters, Albert C. Mann, director, Transportation Equipment division, War Production Board, Washington, D. C., discussed the Over-All Picture, as seen from the W. P. B. This was followed by a symposium on measures to meet existing shortages, which included addresses by A. A. Miller, chief engineer maintenance of way and structures, Missouri Pacific, St. Louis, Mo., on track materials; by A. R. Wilson, engineer bridges and buildings, Pennsylvania, Philadelphia, Pa., on bridge materials; by A. L. Sparks, architect, Missouri-Kansas-Texas Lines, St. Louis, Mo., who discussed building materials; and by A. B. Pierce, engineer of water supply, Southern, Washington, D. C., who discussed water service materials. Abstracts of these addresses follow:

The Over-All Picture

By Albert C. Mann*

Undoubtedly the greatest deprivation you have experienced in your requirements for materials for maintenance work since Pearl Harbor has been with respect to new rail. In 1942 the railroads asked for 1,600,000 tons of rail, but received only 1,260,000 tons. In 1943 the request was for 1,800,000 tons, but allotment was made of only 1,539,000 tons. In mentioning the railroad request, I refer to the tonnage which the Office of Defense Transportation finally determined as minimum requirements and requested of the War

In both 1942 and 1943 the actual rail deliveries by the steel industry were below the tonnage requested. We are encouraged to believe that in 1944 the situation will be better, at least the

trend is in that direction.

The Office of Defense Transportation has asked for 2,200,000 tons of rail in 1944, and while the total tonnage allotted initially by the War Production Board was only 1,825,000 tons, that total has already been increased by an additional delivery of 40,000 tons in the first quarter and by an anticipated increase of 100,000 tons in the second quarter. We have reason to hope that the third and fourth quarters may each produce an additional 100,000 tons, so that the total tonnage for the year may reach 2,165,000 tons, or substantially the amount requested by the ODT.

Along with the added rail deliveries, the War Production Board is trying to work out a simplified program whereby the railroads can secure advance validations of their orders for track fastenings and accessories. This will avoid some of the complications which have risen in the past as a result of the ability of the Board to

* Director, Transportation Equipment Division, War Production Board, Washington, D. C.

furnish rail beyond the quarter's original allotment, while the railways have found it difficult to get the steel mills to accept orders for the additional fastenings and accessories needed.

General Steel Situation

As regards the general steel situation, there have been reductions in some military programs, but this lower demand has been offset by the increased need for many non-military items, such as railroad equipment, track materials, farm machinery, gas and oil facilities, and food containers. Increased allotments for these purposes are responsible for the fact that total allotments to claimant agencies for the second quarter of 1944 are approximately equal to those for the first quarter.

A few producers have idle capacity as a result of lack of demand in their particular territory or for their specific product. However, a careful check of the order books of all producers indicates that the industry in general is well booked and will operate

close to capacity throughout the first half of the year.

The demand for plates and heavy sheets has continued strong, and it has been possible to satisfy requirements only by obtaining maximum production from all mills. There should be some relief as to these products, beginning with the third quarter, due to the completion of new facilities, and especially if the requirements of the Maritime Commission should decline somewhat, as now seems possible. The structural shape situation is quite easy, and shapes are readily obtainable within the limits of overall allotments made by the Requirements Committee of the WPB.

You are familiar with the situation as to alloy steels. Here, the demand has declined to the point where there is no longer any necessity for substituting carbon steel for alloy steel in places

where alloy steel will provide a superior service.

The last two years have been difficult in regard to crossties. Production was slowed down in 1942 by the beginning of the labor shortage and by the uncertainty regarding price regulation created by the Office of Price Administration. Cross ties were not exempt from the General Maximum Price regulations issued in March, 1942, and yet it was almost the end of that year before prices were fixed for ties. It was unfortunate that the government price agency found it necessary to fix maximum prices for ties when there is only one consumer for ties, the transportation industry, particularly when it did not see fit to place some control over the two cost elements which enter into the production of ties-labor and stumpage. Also, there was a delay of almost another year before the maximum prices for treating services were set.

Crossties and Lumber

Due to the slow down in production, while the demand for crossties has continued, it has been necessary for the railroads to accept grades and species of ties which are ordinarily not standard for their use. Let us hope that the day is near when we can get back to buying what we want and need to maintain our roadways properly. We are not "out of the woods" yet so far as tie production is concerned, and there is every evidence that 1944 will still be a tight year for crossties.

Recently, new regulatory orders were issued by the Lumber Division of the War Production Board which affect the procurement of lumber for railroad use. So far these orders merely cause a delay in purchasing and shipping, while paper applications and authorizations are being passed back and forth between the buyer and the War Production Board; and there are indications that some inventory and anticipated use reports will be required before orders can be approved and cleared. All of this is deemed necesporta

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sary by the War Production Board because of the extremely tight demand for lumber for all essential purposes. So that you may see just what the present lumber situation is, I quote from a statement given me by the Lumber Division of the War Production Board

"Preliminary estimates of 1944 lumber requirements total 35.5 billion board feet. Of this total 1,287,000,000 board feet are for railroad construction and maintenance, 616,000,000 board feet of which are for car construction and repair. A total of 2,418,000,000 board feet have been estimated as the requirements for crossties and switch ties, of which about 60 per cent is expected to be in sawed ties.

"The production of lumber in 1944 is estimated currently at 31 billion board feet, in the light of present and prospective manpower and equipment problems. However, in view of attempts being made to ease the manpower and equipment situations, a production goal at 34 billion board feet has been set by the WPB. At this early date, the possibilities of industry's reaching that goal cannot be determined. As the actual lumber supply and requirements for 1944 develop, it may be necessary to tighten existing controls on lumber distribution and use by requiring the substitution of unusual grades, species, and sizes of lumber in railway construction, as well as for other uses."

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Work Equipment

On behalf of the War Production Board, the following statement is made on the subject of equipment and tools.

"Many items of work equipment for maintenance of way and bridge work are more readily obtainable now than they were a few months ago, but several complete units of equipment are still difficult to obtain on reasonable deliveries because of the shortage of raw materials, component parts and inadequate manufacturing facilities. Many mechanical devices parts and inadequate manufacturing facilities. Many mechanical devices mised in track work cannot be delivered promptly because component parts of aluminum and copper are not obtainable. There is an ample quantity of aluminum available but the means of processing castings and extruded shapes are not sufficient to supply the demands, and in some cases the substitutions of essential parts composed of other metals cannot be ac-

shapes are not sumcient to supply the demands, and in some cases the substitutions of essential parts composed of other metals cannot be accomplished satisfactorily.

"Due to the shortage of manpower in industrial plants, as well as on the railroads and in public utilities, a tremendous increase in applications for mechanical devices has been received. This is noted particularly in the case of 250-ton wrecking cranes, adzing machines, tie tampers, crawler tractors, bulldozers, scrapers, drag lines, power wrenches, spike pullers, bolt tighteners, and rail laying machines. Burro rail laying cranes and tie adzing machines are in greater demand than the production ability of the companies that build them. Burro cranes are not obtainable now by new applicants until 1945. Adzing machines can be obtained in about three or four months after the placing of the order.

"Drag lines are not at this moment available for delivery during 1944, as the entire production of these units is being taken by the Army. Crawler tractors are being requested in greater volume than ever before and, as only a limited number are available, prompt deliveries cannot be made except occasionally when a cancellation is received due to a change in program. It is estimated that the requests for mechanical track devices in 1944 have increased at least 200 per cent over those received a year ago.

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"It is essential that applications to the War Production Board for equipment contain valid and detailed reasons why the equipment is needed, where it is to be used and the amount of similar equipment now in use by the applicant. The simple statement of "shortage of manpower" or "for use for general maintenance work," will not suffice. Those applications giving detailed reasons as to the essentiality of needs are given preference, and where it is necessary to deny such applications, reasons for that denial are given, and frequently the suggestion is made that the applicant re-apply at a later date."

"Yardstick" for Essential Projects

It is the policy of the War Production Board, through its Transportation Equipment Division and other industry divisions, to be of all assistance possible to the transportation industry in providing those materials, devices, and equipment which the industry can show clearly are necessary to bring about greater safety in operation and more efficient and speedier transportation service.

The following statement by Donald Nelson, chairman of the War Production Board, made before the House Flood Control Committee on February 22, sets forth clearly the position of the War Production Board on the question of essential and unessential architecture.

"Projects which would involve large requirements of manpower, construction equipment, lumber, trucks, tires, gasoline, and oil, would clearly interfere with the war program.

"On January 11, 1944, just a little more than a month ago, the full board of the WPB discussed in detail the question of relaxing present restrictions on new construction and facilities. You are familiar, no doubt, with the decision reached—in my judgment the only possible decision—that present restrictions on all new construction and facilities must be continued until the probable future course of the war becomes clearer. A test of every proposed project must, therefore, continue to be—the extent to of every proposed project must, therefore, continue to be—the extent to which it will contribute directly to the prosecution of the war or to the maintenance of a sound civilian economy needed to win the war."

While I have not attempted to cover all items of material used

by the engineering departments of the railways, it is fair that you should assume that the restrictions which I have mentioned with respect to a few major items apply equally to all critical materials and to all projects involving such materials. Let us bear in mind that "essentiality in the war effort" is the yardstick with which all of your applications are measured.

Must Get More Life From Track Materials

By A. A. Miller*

We have a patriotic and sacrificing obligation to extend the life of materials now in use before replacing them, if that is safely possible; to do more to reclaim materials where that is safely possible; to exercise the greatest care in programming work and in making material applications; and, most certainly, not to purchase new materials beyond the requirements of what I will call "patriotic, unselfish sufficiency and safety," and then only after we have made a fearless analysis of the conditions that obtain or are liable to obtain.

Some of the things demanded by patriotism in the use of materials are not economically sound; but we are not dealing with economics, we are trying to win a war-to save lives. We will accomplish this most quickly and at least cost if we will forget economics for the moment and will remember only the realities for which we fight and to which we have dedicated our efforts.

The present and prospective shortages of track materials call for highly efficient supervision to insure the most effective use of those materials that are available. More careful and detailed inspection is required than ever before. Previously planned and approved programs may have to be suspended temporarily or revised to meet the unforeseeable conditions which arise from abnormal traffic.

Get the Most from Rail and Ties

In rail, the most common cause for removal from primary main tracks is the condition of its ends. In ordinary times a point is reached when it is no longer economical to overcome rail batter by building up the ends, or to improve joints by the renewal of bars. This is true particularly where the rail is of lighter section than standard for the particular line, and where this rail, if not carried too long in heavy-traffic territory, will give good service on secondary or branch lines. Frequently, rail of lighter section is removed from heavy-traffic main lines even sooner than conditions imposed by the traffic require, because of the need for the rail in lighter traffic lines. This is done too because, so long as new rail is to be purchased, it should be of the heaviest section used by the railroad, and hence should be applied in the heavy-traffic territory. Today, however, under present shortages of materials and labor, it is necessary to carry rail much longer in its original location. This is being done by restoring its battered ends by welding, and by repairing worn joints by the use of shims, reformed bars, etc. Furthermore, rail renewals can be limited to short stretches of track, such as on curves, where wear of the existing rail is approaching the safe

This longer retention of the rail in its first location not only reduces the amount of new rail that must be purchased and laid, but also, and for considerable importance, reduces destruction of the ties.

The practice of reclaiming rail by removing it from the track and cutting off its worn ends is of doubtful propriety where labor shortages exist. Oiling the entire rail to retard corrosion resulting from brine drippings is good practice in normal times and should be continued in war time, where possible, on those lines carrying considerable refrigerator traffic.

There is nothing new about scrap reclamation on the railroads, but in normal times there is an economic limit to the amount of labor and expense which should be spent in this endeavor. For example, normally it would be false economy to spend three

^{*}Chief engineer maintenance of way and structures, Missouri Pacific, St. Louis, Mo.



cents to straighten and recover a two-cent spike. Under present

conditions, such recovery may be entirely justified.

In normal times, when track is being given a general reconditioning such as accompanies rail or ballast renewal, it is economical to take out all crossties that are approaching the end of their effective life, even though some of those ties have a year or two of life remaining. This practice is particularly justified on lines of heavy traffic where labor costs are always high. Under present conditions, however, with only a fraction of next year's normal tie requirements in sight, it is undesirable to renew any ties which have not fully completed their service life. In some cases, in view of the shortage, and particularly on light-traffic lines, it may be necessary to turn some ties over in order to secure a face that will support the tie plates and hold spikes properly.

The abandonment of branch lines may provide usable ties. Therefore, the process of taking up the track should be so devised as to avoid damage to any usable ties. It may be desirable to re-treat some such second-hand ties, particularly where the treating facilities are not too far distant. In any event, the application of creosote to the rail bearing areas, or to other exposed surfaces of the ties, at the time the track is being taken

up, is very desirable to check any incipient decay.

More Reclamation Justified

Some railroads do things in the way of reclaiming materials that others do not do. What may be good and economic practices in normal times for some, may not be for others.

Is it sound economy to upset and reshape "neck cut" spikes? The answer is no, but it can be done and is being done on some roads. Can rail anchors be reclaimed? Yes, any type. Is it being done? Yes, some railroads operating reclamation plants are doing it. Can crossties, no longer fit for use as ties in any track, be used for any other purpose? Yes, they can be used for fence posts and for stabilizing the roadbed. It can be done. Some railroads are doing it.

Are we still using track tools on the basis of wear limitations set up years ago? We can safely change those wear limits. Some

railroads have done it. All railroads can do it.

Do we still use full ballast sections because we always have? In a time like this, the "semi-box" section can be used safely, with the ends of the ties completely exposed on tangent track and on the low sides of curves, where the track is fully anchored and equipped with double-shoulder tie plates.

Do we continue to overhaul and rebuild motor cars on the "50 per cent, or to 70 per cent of the cost of a new car" basis, or do we overhaul them when they are sent in and examine the cost sheets afterward? At a time like this, the latter way is

the patriotic way.

Are War Effort committees being set up on individual railroads, whose duty it is to draw conclusions with respect to what can or can not be done safely to meet the requirements of sufficiency on their respective properties, and thereby reduce to a minimum the purchase of new materials? This should be done, and the results of these committee efforts should be cleared through the American Railway Engineering Association to the end that all railroads may benefit from the things that are being accomplished.

Let us not only think and talk of these things; let us try them out, and if our results are sufficiently satisfactory, let us

not keep our "light under a bushel."

Maintain Buildings— Salvage Everything Possible

By A. L. Sparks*

Why should we worry continually about the shortage of certain building materials when there is more than enough of other kinds of building materials to keep us busy, and such pressing need for catching up on some of the things that we have necessarily postponed during the last decade. Most of the older mem-

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bers of this association have been over the same road we are traveling today, and know well that the prosperity we are now enjoying will all too soon go over the hump, and that we will then start on the down grade. It would seem well, therefore, to consider first most carefully putting our present facilities into the best possible condition, knowing that, regardless of our ambitious building plans, we will probably be forced to go through another decade with many of our present old buildings.

Government permission is not required for maintenance and repairs, provided we have the materials with which to complete them, or can secure the materials within our regularly authorized

allotment.

There is a vast amount of maintenance work which can be done with non-critical materials. What are some of these classes of work?

We can help relieve our future load by catching up on repairs to concrete floors and pavements, masonry foundations, retaining walls and substructures. We can correct defects in drainage and sewer systems. We can clean and rake the defective mortar joints in terra cotta, stone, brick and masonry buildings; tuck point them and install new wall caps and copings; and calk around windows and doors—all with non-critical materials. We can repair and waterproof the weathering surfaces of expensive concrete structures to prolong the life of these structures.

Most of our buildings, doubtless, are now painted, but there still exists forgotten rusted and corroding steel which can be cleaned with inexperienced labor and coated with rust-resisting and inhibiting materials. Furthermore, we can renew worn out and leaky roofs with new long-life roofs, using non-critical materials, and thereby placing these unavoidable expensive repairs behind

us for many years to come.

Concrete, brick, tie, marble, plaster, composition roofing, glass, sewer pipe and paint are not restricted. Reinforcing and structural steel shapes and sheet steel lighter than 18 gage are available. Small quantities of pipe, wiring and hardware are also to be had. Thus, there is ample material to keep our available building mechanics busy continuously with essential maintenance work.

Some new building construction, especially the replacement of facilities destroyed by fire, is absolutely necessary to the movement of troops and war materials. Government regulations and

conservation orders provide for such construction.

The March 7 revision of the War Production Board's Order L 41 states that permission is not necessary for the "laying of railroad tracks, together with the construction of necessary operating facilities, but not including buildings, tunnels, overpasses or bridges." The Association of American Railroads receives interpretations as to what will be allowed as operating facilities. It is necessary to make formal requests of the War Production Board for permission to construct most types of buildings costing more than \$1,000, to be spent in any one year, except that second-hand material and the labor to install this material may be used in any such building projects, in addition to the \$1,000 worth of new material.

Lumber the Bottle-Neck

The shortage of lumber constitutes the bottle-neck in our present building programs, with no indication of relief in sight. It is said that present war needs require 70 per cent of the nation's normal annual production, and there is no indication that these war needs will diminish soon.

War Production Board Instruction No. 617 states that "The salvage of all reusable lumber; not specifically incorporated in a structure, is mandatory and its destruction is prohibited. Such lumber shall be made available immediately for reuse."

Obviously, the small amount of building lumber that we will be fortunate enough to secure in the near future will be precious, and should be used sparingly for making sash and doors and for only other most vital needs. Under these conditions, the most important matter confronting building men is the conservation of their second-hand lumber. In fact, it may be that, before the present emergency ends, we will be tearing down some frame buildings and rebuilding them with brick and concrete in order to get form lumber with which to construct essential facilities. Never before were so much skill and study justified in the design of concrete forms as now. All form lumber should be so cut and framed that forms can be erected, taken down and re-

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erected the maximum number of times with a minimum amount of waste and breakage.

If the war were to end tomorrow, we would still be faced with a lumber shortage for many months. There will be some reclaimed material from abandoned and dismantled camps and war plants, but local dealers, no doubt, will quickly absorb all this to restock their empty yards.

A few months ago a careful search was made over all of our properties for every piece of non-essential brass and other metal. Perhaps we could now well afford to make a very careful survey of every building and other structure with the view of locating and cataloging for possible future use every available surplus or unnecessary scantling and plank. Such inventories might reveal surprising possibilities.

The most effective measures that we can take in the light of the present building material situation are to quit worrying about the things we can't get, and use the things that we can get to place expensive repairs behind us—leaving new lumber for Uncle Sam in winning the war.

Meeting Shortages in Bridge Materials

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By A. R. Wilson*

The materials available for bridge work are limited and most of them are now critical; therefore, bridge engineers must exercise their ingenuity in the use of these materials. During this war, few new railroad structures have been built because of the restricted use of new steel—reinforcing rods, structural plates and shapes. In the preparation of the design for those structures that have been built, particularly careful consideration has been given to erection, to minimize interruption to traffic. I am familiar with one reconstruction project in which a truss bridge was replaced by plate girders, where the old stringers were used and where the design was so developed that the complete removal of the trusses and the erection of the girders were accomplished without interruption to any scheduled train. The erection material was then salvaged for use in a permanent structure.

Recent issues of the Railway Age have contained articles on the revision of alinement on the St. Louis division of the Pennsylvania, in which the bridges employed were refabricated from girders removed from a viaduct in Newark, N. J., the girders having ample strength with their shortened lengths.

About a year ago, the army engineers built a canal about six miles long across the southern tip of New Jersey, connecting the Atlantic ocean with Delaware bay—requiring that several draw bridges be built, one a railroad bridge. This construction was carried out during the time that new steel was most critical. However, the canal had to be built and the railroad had to continue in operation. In studying this problem, a half-through plate girder draw bridge, not in service, of longer length than was required, was located. This old structure was cut apart and shipped to a new site and rebuilt into a deck structure of shorter length. These instances indicate what can be done with old structures to adapt them to new conditions and modern loading. To an equal extent, the use of reinforcing steel can be eliminated or reduced materially in constructing concrete retaining walls and arches if the designs are based on gravity sections.

On any line, a bridge, by its design, may restrict the weight of motive power permitted. Such restrictions may be removed by strengthening, at moderate cost, thus postponing the more expensive job of complete renewal. This strengthening should be done only after the design of the structure and its condition have been analyzed carefully to determine whether such reinforcing will be effective, particularly in the details of connections.

The problem of maintenance is one that should be uppermost in the mind of the bridge engineer, both when designing new structures and when endeavoring to prolong the life of existing structures. Maintenance embraces preventive work. To be most effective, such preventive work calls for frequent inspection and a system of records that will enable the engineer to know at all times the true condition, without any guess work.

The effect of corrosion and the increase in the weight of equip-

* Engineer bridges and buildings, Pennsylvania, Philadelphia, Pa.

ment are two of the engineer's greatest nightmares. When he is confronted with, a structure in which only part of its useful life has expired, he must, by some method, repair or strengthen it so that it can continue in service. Welding will not solve all of our problems, but many do arise where no other method is so well adapted. It is a great aid in repairing defective details. In the reinforcement of old structures it has an advantage over riveting because it provides a means for attaching new metal without the use of rivets or bolts.

Our job is to keep our bridges safe. One of the measures essential to meet the shortage of materials is to assume an attitude of openmindedness. It is a human characteristic to think well of practices for which we are responsible or which we have followed for a long time, but to get the best results we must consider new suggestions fairly and endeavor to adapt them to our practice or to modify our method so as to embody any improvement which may be practicable.

This association has a wealth of information and recommended practices tucked away in its publications, which, if studied, will indicate the best way of doing various jobs economically. Upon the recommendation of the Committee on Iron and Steel Structures, the A. A. R. has participated in the cost of an investigation of fatigue failure in its relationship to the strengthening and repair of steel bridge members. This report appears in one of the recent bulletins and indicates certain facts which should be borne in mind in the strengthening and repairing of bridge members.

In the same bulletin there is a progress report on An Investigation of Electrolytis Corrosion of Steel in Concrete. I wonder how many structural engineers ever thought that this subject was of concern to them. These two articles are typical of many to be found in the publications of this association. I am convinced that if the engineer will review these publications, many suggestions will be found as to the most effective measures to be taken to meet the existing shortage of materials.

Water Service Conditions

By A. B. Pierce*

During the present war emergency, the railroads have employed many ingenious methods to cope with the problems presented by the necessity of fulfilling their ever-increasing water requirements with greatly reduced supplies of materials. In this connection, the extensive use of automatic electric pumping equipment has saved coal, fuel oil and other critical materials for the war effort and has released coal and oil tank cars for other uses. Furthermore, as this type of equipment does not require manual attendance, it has helped to cope with the manpower shortage.

At many locations our water requirements had more than doubled and, to prevent serious train delays, changes had to be made at once without requesting priority assistance. To this end a complete survey was made to locate abandoned pipe lines that could be reused, and several miles of different size pipe and fittings were recovered, cleaned and put into service for discharge and suction lines.

Abandoned steam pumps and boilers were thrown into service at new locations and were used as emergency equipment to augment our main water stations, which, owing to lack of capacity or insufficient water at the source of supply, were unable to meet the additional water requirements. In many cases these old auxiliary steam plants have prevented the main stations from running out of water. Additional elevated storage tanks had to be installed at several points to meet the augmented peak demand for water. These consisted of second-hand tubs installed on frames built from lumber salvaged from filled trestles.

At several water stations it was necessary to construct dams in the creeks to store all of the water available. At other locations existing dams were raised and storage reservoirs enlarged, all of which was accomplished without the use of critical materials. Where pipe for new pipe lines had to be purchased, we have used cement-asbestos pipe to prevent the use of critical material. However, it was not long before this type of pipe was more difficult to obtain than iron pipe.

Because of the difficulty of obtaining rubber repair parts for (Continued on page 601)

^{*} Engineer of Water Supply, Southern, Washington, D. C.

Address System in a Hump Yard

Illinois Central improves the operation of a large classification yard by installing four loud speakers



Two Pairs of Speakers Located Near the Mid-Point of the Yard Are Sufficient to Communicate with Any Worker in the Lower Half of the Yard

OUD speakers mounted on poles near the mid-point of an Illinois Central hump classification yard are now serving effectively to improve operation and reduce damage to lading. Either the office at the hump or the yardmaster's office at the lower end of the classification yard may issue instructions over the speakers to the skate tenders or to the engine crews which move cars from the classification to the departure yard.

The classification yard contains about 22 miles of track with a freight car capacity of 2,300 cars. It has 62 tracks, each with 20 to 60 cars capacity. Electropneumatic switches and car retarders, controlled from five towers switch cars leading the hump into any one of the 62 tracks and control their speed so they will arrive at coupling speed at the ends of the cars in the track to which they are switched.

Aid Work of Skate Tenders

Four skate tenders are employed who so place skates to stop the first few cars which enter the tracks, as to further retard any car which is arriving at too great a speed, and to separate entirely any car containing fragile lading, the coupling being done later by the engine crew. To enable the skate tenders to perform the work effectively, it is frequently necessary to notify them of special conditions at the time the car in question goes over the hump. The loud speakers have satisfied this

A further improvement in operation is obtained by

the fact that the yardmaster as well as the hump operator may use the speakers. He may advise the engine crews when cuts of classified cars are ready for transfer to the departure yard and also issue instructions concerning special conditions. Messengers or the yardmaster himself are otherwise required to deliver orders to engine crews and the speakers allow the classification yard to be cleared more quickly than would otherwise be possible. The speech reproduced by the speakers is remarkably clear and the volume is such that the voice may be clearly understood at a distance of 1,500 ft. against a 20-mile wind.

Major facilities in the yard include the following:

Plate fulcrum scales with automatic recording devices located at the hump.

Car retarders and remotely controlled switches.

Floodlight illumination from batteries of electric lights on high towers.

Pneumatic tubes for handling waybills to and from the general yard office.

Teletype machines for writing switch lists in the various switch towers and hump and yardmaster's office.

Microphones and loud speakers for communication between the yardmaster's office and towerman in the classification yard.

Color light signals for controlling the movement of pusher engines while humping.

Terminal for housing, servicing, and repairing locomotives. Car repair yard.

Automatic telephones.

There are telephones in booths at various places in the yards by means of which men in the yard hold twoway communication with either the hump or the yard office, but these do not allow for sufficiently rapid contact to accomplish the purpose of the loud speakers.

The Loud Speaker System

The yard and hump offices are each furnished with one telephone type handset having a built-in, push-totalk-switch. Four conductors (2 pairs) in a telephone cable connect each handset with control and amplifier equipment located near the mid-point of the classification

Parkway cables are use to connect the amplifiers to four speakers on poles in the yard. The speaker mechanisms are 15-watt (nominal) units in 45 deg. baffles, mounted two on a pole with each pole pair driven from one 50-watt amplifier. The equipment is designed to provide immediate availability for use, 24

hours a day.

To make use of the system, the handset is placed to the head, as in normal telephone practice. If speech is heard in the receiver the other handset is in use. Pressing the push-to-talk switch will connect the handset transmitter for use, if the other handset is idle. tone signal will then be heard in the receiver and will also be broadcast in the yard as an "attention" signal after which the message may be broadcast. The message is spoken slowly and distinctly and after a brief pause is repeated. Failure to receive the tone signal

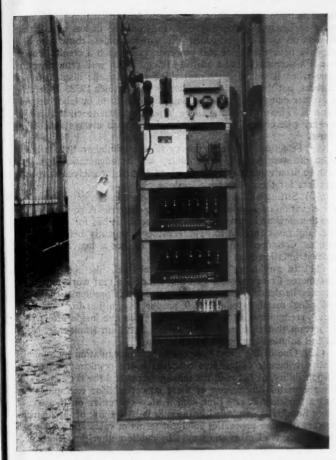
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Equipment Required for the Operation of the Loud Speakers

indicates that the control equipment has not prepared the transmitter circuit for use.

Men in the yard may talk to either the hump or yard offices from one of several telephone booths located in the yard, but this method has not been found practicable for issuing emergency instructions to skate tenders and it does not, like the loud speakers, provide a means for quick communication from yard office to engine crews.

The installation described was engineered and installed under the supervision of W. M. Vandersluis, general superintendent, telegraph and signals.



The Yardmaster Talks to an Engine Crew

Materials Supply Is Still Skimpy

(Continued from page 599)

water columns, pumps, etc., arrangements were made to use parts made from synthetics and from reclaimed rubber. Also, a leather manufacturer advised that he could make substitutes for the rubber parts we were unable to obtain. Moreover, it was found that much more prompt delivery of repair parts could be obtained by accepting iron pistons, cylinders, etc., in place of standard brass or bronze parts.

Owing to the shortage of pump repairmen and the additional work required of those remaining in service to maintain our overworked pumping equipment, we have supplied these men with automobile trucks. These trucks make it possible for the repairmen to maintain a greater number of stations, and also makes it possible for the repairmen to reach the stations by highways in the least time possible. As a further means of saving time and labor, the pump repairmen have been furnished with motor-driven tools.

We were not always so fortunate as to be able to take care of our increased water requirements by the use of second-hand materials. Complete new stations have been installed involving deep wells, motors, pumps, new tanks and pipe lines. At one location where the city advised they could no longer meet our demands, we have drilled three deep wells.

We are now drilling wells at several other locations in an endeavor to satisfy our increased water requirements and to avoid causing delays to troop, passenger and freight trains. New and larger pump discharge lines have had to be installed, together with larger water columns and water-column supply lines, to speed-up train operation. Until relatively recently, a discharge capacity of 3,000 gal. per min. for water columns was considered ample, but with the increased traffic and larger tender tanks now in use, 5,000 gal. per min. is desired.

Owing to the great increase in passenger service involving troop movements and entailing both Pullman and coach trains, many new or enlarged drinking water facilities had to be installed at many points to reduce the time required to water long trains. Additional water installations were also required for Diesel-electric locomotives. About three times as many watering points are required for air conditioning systems and Diesel engines as are needed for supplying fuel oil.

Relative to the use of chemicals for water treatment, the WPB, by means of limitation orders, was obliged to restrict the use of soda ash, alum and tannins. We were advised that the railroads would be limited to 70 to 80 per cent of the soda ash used in 1941. As soda ash is one of the most important chemicals required in water treatment, and as our water requirements were constantly increasing, the matter was taken up with the WPB with good results.

In July, 1942, the WPB issued a restraining order to the effect that alum or aluminum sulphate could be manufactured only from an inferior grade of bauxite. Accordingly, emergency alternate specifications for aluminum sulphate were adopted by the American Water Works Association, reducing the alumina content from 17 per cent to 14 per cent. Because of this change it was necessary to make adjustments in our treating plant procedure.

In February, 1943, the WPB issued a limitation order curtailing the use of chestnut tannins for water treatment, following which the A. A. R. called on the Emergency Committee on Water Treatment to investigate and report on the results of the order. The ensuing report requested that the conservation order be modified to permit the railroads to use chestnut extract for boiler water freatment as a necessary requisite for safe and dependable operation, but that some percentage reduction in the amount of chestnut extract used could be made in the various formulas; possibly as much as 25 per cent. Any curtailment in the use of tannins beyond a certain amount will result in scale formation in cold water lines, injectors, boiler checks, feed-water pumps and heaters, and in locomotive boilers.

Many satisfactory synthetics and substitutes have been introduced to take the place of critical materials, but so far no one has come forward with a substitute for water. We may use wood, coal, oil or electricity for producing steam, but we still must have water to take care of the ever-increasing thirst of our steam locomotives.



Eastman's Admonition on Federal Agencies

HAT turned out to be Joseph B. Eastman's final public utterance was the speech he made at the I. C. C. practitioners' dinner held in his honor on February 17 and reported in the February 26 Railway Age. The central theme of Mr. Eastman's address on that occasion was his "primer" on the subject of governmental administrative tribunals. This "primer" embraces a theme upon which the Commissioner would doubtless have expanded had he not been taken away. Since, as fate would have it, this will be his last instruction on the subject, it is timely now to record it in full:

(1) With the country as big and complex as it is, administrative tribunals like the Interstate Commerce Commission are necessities. Probably we shall have more rather than less. To be successful, they must be masters of their own souls, and known to be such. It is the duty of the President to determine their personnel through the power of appointment, and it is the duty of Congress to determine by statute the policies which they are to administer; but in the administration of those policies these tribunals must not be under the domination or influence of either the President or Congress or of anything else than their own independent judgment of the facts and the law. They must also be in position and ready to give free and untrammeled advice to both the President and Congress at any time upon request. Political domination will ruin such a tribunal. I have seen this happen many times, particularly in the states.

(2) The courts were at one time much too prone to substitute their own judgment on the facts for the judgment of administrative tribunals. They are now in danger of going too far in the other direction. The principle that it is an error of law to render a decision not supported by substantial evidence is a salutary prin-

ciple. The courts should enforce it.

(3) An administrative tribunal has a broader responsibility than a court. It is more than a tribunal for the settlement of controversies. The word "administrative" means something. The policies of the law must be carried out. If in any proceedings the pertinent facts are not fully presented by the parties, it is the duty of the tribunal to see to it, as best it can, that they are developed of record. A complainant without resources to command adequate professional help should be given such protection. The tribunal should also be ready to institute proceedings on its own motion, whenever constructive enforcement of the law so requires.

(4) There is no safe substitute in the procedure of the tribunal for full hearing and argument of the issues, when they are in controversy, although the hearing need not always be oral. This takes

time, but it is time well spent.

(5) The decisions of the tribunal should present succinctly the pertinent facts, as they are found to be, and the conclusions reached,

but also state clearly the reasons for the conclusions.

(6) The statutes which the tribunal administers should be well, simply, and carefully framed, but the personnel which does the administering is more important than the wording of the statute. Good men can produce better results with a poor law than poor men can produce with a good law.

No Job for Zealots

(7) It is not necessary for the members of the tribunal to be technical experts on the subject-matter of their administration. As a matter of fact, you could not find a man who is a technical expert on any large part of the matters upon which the Interstate Commerce Commission finds it necessary to pass. The important qualifications are ability to grasp and comprehend facts quickly, and to consider them in their relation to the law logically and with an open mind. Zealots, evangelists, and crusaders have their value before an administrative tribunal, but not on it. Other important qualifications are patience, courtesy, and a desire to be helpful to the extent that the law permits.

(8) Moral courage is, of course, a prime qualification, but there are often misapprehensions as to when it is shown. The thing that

takes courage is to make a decision or take a position which may react seriously in some way upon the one who makes or takes it. It requires no courage to incur disapproval, unless those who disapprove have the desire and power to cause such a result. Power is not a permanent but a shifting thing. I can well remember the time when it was a dangerous thing to incur the displeasure of bankers, but there has been no danger in this since 1932. It became a greater danger to incur the displeasure of farm or labor organizations. There is nothing more important than to curb abuse of power, wherever it may reside, and power is always subject to abuse.

(9) Selection of the members of an administrative tribunal from different parts of the country has its advantages, but they turn to disadvantages, if the members regard themselves as special

pleaders for their respective sections.

(10) Sitting in dignity and looking down on the suppliants from the elevation of a judicial bench has its dangers. A reversal of the position now and then is good for the soul. It has for many years been my good fortune to appear rather frequently before legislative or Congressional committees. They are a better safeguard against inflation than the O. P. A.

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(11) In any large administrative tribunal, like the Interstate Commerce Commission, a vast amount of the real work must necessarily be done by the staff. It is a difficult problem to give the individual members of the staff proper recognition for work well done—recognition on the outside as well as the inside. It is very important that this problem be solved, but I am frank to say that

its full solution has not yet been reached.

(12) One of the great dangers in public regulation by administrative tribunals of business concerns is the resulting division of responsibility, as between the managements and the regulators, for the successful functioning of these concerns. For example, there was a tendency at one time, and it may still exist, on the part of those financially interested in the railroads to think of the financial success of those properties solely in terms of rates and wages and the treatment of rates and wages by public authorities. Sight was lost of the essentiality of constant, unremitting enterprise and initiative in management. The importance of sound public regulation cannot be minimized, but it must not be magnified to the exclusion of those factors in financial success upon which ordinary private business must rely.

Train or Plane?

To hear some people tell it the railroads haven't a chance after the war, particularly in the passenger business. If the airplanes don't take all of it, they will get the best of it and the poor old railroads will languish.

Maybe that's the way it will go, but nobody can be too sure of it. Certainly if the railroads are alive to their opportunities, they can continue to operate cross-country passenger trains at a profit for a long time to come.

The airplane is faster, but the advantage of its higher speed can be largely overcome by faster trains. If schedules are arranged which permit a departure from Chicago at the dinner hour and arrival in New York, Washington, New Orleans, Denver, or Montreal in time for 9 o'clock appointments, there will be little advantage in taking a plane. The traveler will lose no working time this way and he will make his journey in greater comfort than the planes are likely to provide. As to safety, we may expect a considerable improvement in air transport over the pre-war accomplishment, but, even so, the advantage is likely to remain with the railroad for a long time to come.

Of course, the railroads will lose out if they don't fight for passenger business. Faster trains will require some changes in the rights of way, particularly at the curves, which must be made more gradual. Additional safety controls will be needed. A great deal of new equipment will be called for, but, fortunately for the railroads, they have now had much experience in the operation of streamliners and can build on that. We may well see nonstop operations between Chicago and New York, for example, and the by-passing of the intervening terminals. With Dieselelectric locomotives there will be no need to stop to change engines.

From the Chicago Tribune

Missouri Pacific Freight Power

Baldwin delivers 15 4-8-4 type units for highspeed service which weigh 496,000 lb. and have 67,200 lb. tractive force with 73-inch drivers

HE Missouri Pacific recently took delivery of 15 4-8-4 type locomotives designed for tall neight service on the eastern lines of that road and are at present being used to handle symbol trains between St. Louis, Mo., and Kansas City. These locomotives were built at the Baldwin Locomotive Works. They have a total engine weight of 496,000 lb. and a tractive force of 67,200 lb. The boilers are designed for a steam pressure of 285 lb.

Boiler Construction and Design

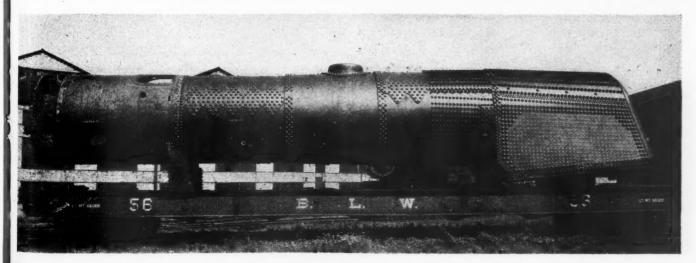
The boiler is the conical type having an inside diameter of 8934 in. at the first ring and an outside diameter of 100 in. at the third ring, the second ring being tapered. The barrel courses are fabricated of carbon steel with butt-joints multiple-riveted longitudinal seams. The plate thicknesses for the three barrel courses are $1\frac{1}{8}$ in., $1\frac{7}{32}$ in. and $1\frac{1}{4}$ in., respectively. The medoxes of these boilers have a width of $102\frac{1}{4}$ in. and a length of $150\frac{1}{8}$ in. The Firebar grates have an area of 106 sq. ft. The combustion chamber is 72 in. long. The plate thicknesses in the firebox are $\frac{3}{8}$ in. for the sides, crown and furnace door sheet; $\frac{1}{12}$ in. for the back flue sheet; $\frac{5}{8}$ in.

for the front flue sheet and 1 in. for the roof sheet. The firebox roof sheet is double riveted and seal welded to $\frac{9}{16}$ in. side sheets. The firebox water spaces are 6 in. at the front and 5 in. at the sides and back. The boilers are fitted with 70 $\frac{21}{4}$ in. No. 11 B.W.G. tubes and 178 4-in. No. 9 B.W.G. flues, all 21 ft. 0 in. over the tube sheets.

The fireboxes are welded; seal welding is used at the mud ring, fire door, back head to roof, throat sheet to barrel, roof sheet to barrel, side sheets to roof sheets, crown sheet, back flue sheet to combustion chamber and front flue sheet to the flue-sheet ring.

A complete installation of flexible staybolts is used in the combustion chamber, the breaking zones of the firebox and in the throat sheet. In these locations, Flannery Type D bolts are used with UW sleeves. The firebox volume is 736 cu. ft. The boilers are equipped with the Elesco! Type E improved 90-unit superheater and the American Throttle Company's multiple front-end throttle. The fuel is fed by means of a Standard Type BK stoker. The feedwater system for these boilers consists of one Edna NL injector and a Worthington type 6SA feedwater heater having both cold- and hot-water pumps located on the left side of the locomotive. The







Barco low-water alarm is installed. There are three Nicholson Thermic syphons; two of these are in the fire-box and one in the combustion chamber. The Security brick arch is supported on the syphons and two arch tubes.

Foundation and Running Gear

The locomotive bed is supplied by the General Steel Castings Corporation and has the cylinders and back heads cast integral. The engine trucks are the General Steel Castings Corporation four-wheel type of the constant-resistance inside-bearing design. The engine trucks have carbon-steel axles and 36-in. rolled steel wheels. The driving wheels have Boxpok cast-steel centers 66 in. The driving-wheel centers are mounted on carbon steel axles and are fitted with 73-in. tires. The front driver is equipped with the Alco lateral motion device. The main wheels of these locomotives are cross balanced and in balancing the locomotives 28 per cent of the total of 2,024 lb. of reciprocating parts is com-The overbalance is 100 lb. in the main pensated for. wheel and 150 lb. in each of the front, intermediate and back wheels.

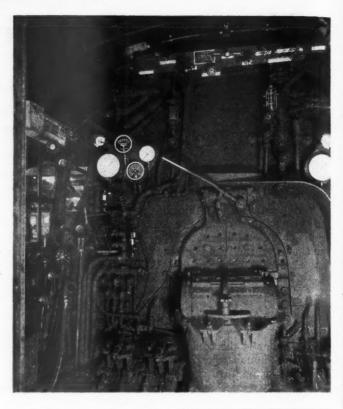
The trailing truck is the General Steel Castings Corporation's design with 36-in. rolled steel wheels on the front trailing truck axle and 42-in. steel tired wheels with cast-steel centers on the rear axle. All axles of the locomotive are equipped with Timken roller bearings.

Hollow-bored crank pins are used on the driving wheels. The rods are designed with floating bushings at the main crank pin and are designed for the reboring and application of fixed bushings if desired. The piston heads are of cast steel with carbon-steel piston rods and multiple-bearing crossheads. The valve gear is of the Walschaerts type controlled by an Alco Type G power reverse gear. The 14-in, piston valves have a maximum travel of 7 in. Cylinder and valve chamber bushings are Hunt-Spiller gun iron.

The spring rigging is of the conventional type with continuous equalization on each side from the front of the front driver to the rear of the rear trailer wheel. Mechanical lubrication is supplied by means of two Edna Model A 30-pint lubricators. One eight-feed unit, located on the right side, serves the cylinders, valves, stoker engine and feedwater pump. The other, a 10-feed unit, located on the left side, serves the valve-stem guides, engine-truck pedestals and center plate, driving and trailer pedestals, furnace bearer, radial buffers, reverse-link trunnions and blocks and lateral-motion device. Alemite lubrication is used on the rods, motion work, cross-head pins and spring rigging.

The cab is of conventional design, woodlined steel, having steel sash with shatterproof glass. The cabs are equipped with cab radiators. U. S. King type sanders are supplied from sand boxes having 30 cu. ft. capacity. Each locomotive is equipped with two 8½-in. cross compound air compressors. The locomotive and tender brake equipment is the No. 8 ET supplied by the Westinghouse Air Brake Company. Barco flexible pipe connections are in use between the engine and tender.

The tender tank is rectangular with a coal capacity of 20 tons and a water capacity of 20,000 gals. Cast-steel water bottom tender underframes are used and the entire tender structure is supported on two General Steel Castings Corporation's six-wheel center-bearing, equalized tender trucks having carbon-steel axles and 36-in. rolled steel wheels. The axles have 6½-in. by 11-in. journals and are mounted on SKF roller bearing units. Franklin radial buffers are installed between the engine and tender. The tender draft gears are Miner A5XB.



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General Dimensions and Weights of the Missouri Pacific 4-8-4 Type Locomotives

Builder Baldwin Loc	omotive Works
Road class.	26 S. 63
Road numbers	2201-2215
Date built	August, 1943
Service	Freight
Rated tractive force, engine, 85 per cent, lb	67,200
Webberg and the	
Weights in working order, lb.:	200 000
On driversOn front truck	280,000 24,000
On trailing truck	122,000
Total engine	496,000
Tender (light)	152,400
Tender (loaded)	359,000
Wheel bases, ftin.:	
Driving	19-3
Engine, total	47-1
Engine and tender, total	93-534
Driving wheels, diameter outside tires, in	73
Cylinders, number, diameter and stroke, in	26 x 30
Valve gear, type	Walschaerts
Valves, piston type, size, in	14
	7
Maximum travel, in	,
Boiler:	
Steam pressure, lb	285
Diameter, first ring, inside, in	8934 1501/8
Firebox length, in Firebox width, in	1021/4
Combustion chamber length, in	72
Arch tubes, number and diameter, in	33
Tubes, number and diameter, in	70-21/2
Flues, number and diameter, in	178-4
Length over tube sheets, ft. and in	21-0 Bit. coal
FuelGrate area, sq. ft	106
Grate area, sq. it	100
Heating surfaces, sq. ft.:	
Firebox and comb. chamber	423
Arch tubes	17
Syphons	119 559
Firebox, total	4.747
Firebox and comb. chamber	423
Arch tubes	17
Tubes and flues	4.747
Evaporative, total	5,306
Superheater	2,200 7,506
Compined evap, and superneat	1,000
Tender:	
Style	Rectangular
Water capacity, gal	19,350
Fuel capacity, tons	Six-wheel
1 I uchs	Man. Wilco.

Hearings on Land-Grant Repeal

Railroads launch new drive for relief before friendly House Committee with support of I.C.C. and shippers interests and conditional backing from transport study board

WASHINGTON, D. C.

AKING their new drive for repeal of remaining provisions of the land-grant-rate law, the rail-roads during the past week found themselves before a sympathetic Congressional committee with the support of the Interstate Commerce Commission and shipper interests, and with conditional backing from a report issued by the Board of Investigation and Research.

This generally favorable situation developed at a House interstate and foreign commerce subcommittee's hearings on H.R. 4184, the repealer introduced by Representative Boren, Democrat of Oklahoma, chairman of the subcommittee. Members of the subcommittee seemed mainly concerned lest the bill meet the same fate as the 1942 proposal sponsored by Committee Chairman Lea, which was recommitted by the House. They were thus interested principally in information which would prepare them for the answering of objections which might be raised in debate on the floor.

Want to Go Before House Well Armed

This purpose was frankly stated by Mr. Lea who attended the subcommittee's opening session. The matter, he said, "calls for thorough investigation, so that we will go back to the House again well armed." As noted in the Railway Age of May 9, 1942, page 913, the House's action recommitting the Lea repealer came after debate wherein opposition to the measure as drawn seemed to have crystallized in response to arguments citing the potential cost in higher freight rates to the government, the relative current prosperity of the railroads, and the failure of the bill to provide for a return by the carriers of granted lands still in their possession. There is no provision for return of the lands in the Boren bill.

The principal presentation on behalf of the railroads was made by Judge R. V. Fletcher, vice-president of the Association of American Railroads, who emphasized the burden of the land-grant deductions, now running to more than \$20,000,000 a month, and suggested that the time has come to "renegotiate" this contract of 1850 "in the light of present-day conditions." Other railroad presentations were made by H. A. Scandrett, trustee of the Chicago, Milwaukee, St. Paul & Pacific; J. B. Hill, president of the Louisville & Nashville; W. M. Jeffers, president of the Union Pacific; and C. A. Miller, vice-president and general counsel of the American Short Line Railroad Association.

Mr. Jeffers emphasized particularly the potential liabilities of the railroads for refunds in cases where they have applied the commercial rates, being in disagreement with the General Accounting Office as to the applicability of land-grant deductions to the traffic involved. If the General Accounting Office view finally prevails and the refunds are called for, the U. P. president said, "no railroad in this country can survive, including the Union Pacific, and that's a pretty healthy railroad."

The Board of Investigation and Research report was put into the hearing's record by Subcommittee Chairman Boren. It is the land-grant phase of the board's general study of public aids to transport, consisting of the staff report prepared under the supervision of Burton N. Behling, director of the Public Aids Investigation, together with separate expressions from Board Chairman Robert E. Webb and Member C. E. Childe.

The staff report, to which Mr. Webb subscribes, recommends repeal upon condition that the railroads return to the government the granted lands still in their possession; or, in the alternative, that the effective date of repeal be postponed "for a stipulated period of several months, for the specific purpose of accumulating from net government savings on land-grant deductions an amount deemed sufficient to provide the government with an equivalent of funds to be used in the subsequent purchase or acquisition under condemnation proceedings of so much of these lands as may be necessary for the sound administration of the public domain within which the remaining railroad land grants are located."

Chairman Webb pointed out that Mr. Childe does not concur in the proposal that the railroads should be required to return the lands; but "he is not in disagreement with the alternative proposal." Speaking for himself, Mr. Childe did not mention the latter but expressed his non-concurrence in the return-the-lands idea. He saw "no equity" in it, and besides it is "wholly irrelevant"; for repeal "should be based wholly on the grounds that the principle of equality of treatment requires that the government, as a user of transportation, be placed upon the same footing with any other shipper."

Plugs for Uniform Rates

Also, Messrs. Webb and Childe got in a couple of plugs for the uniform freight rates recommended in the interterritorial rate report which they went outside their statutory assignments to produce for Senator McKellar, Democrat of Tennessee. Final settlement of the landgrant-rate problem, said the Webb letter, "should facilitate an adjustment of the interterritorial freight rates. . . ." The Childe letter put it this way: "Repeal of land-grant deductions will be an important step toward uniformity of rate levels. . . . It is notable that the general levels of class rates and many individual commodity rates in the West and South, where most of the land-grant railroads are located, are substantially higher than in the East, where land-grant deductions are negligible. . . . The repeal of land-grant deductions would, in my opinion, provide an additional reason why the inequalities now existing in these rates should no longer be maintained.

Furthermore, the Webb letter, seemingly speaking also for Mr. Childe, recommended that Congress, upon repealing the land-grant rates, should "direct the Interstate Commerce Commission, and other government agencies which have a proper interest in railroad rates



either as shippers or otherwise, to take appropriate action to determine whether any commercial tariffs previously affected by land-grant deductions on government traffic are in need of adjustment." In addition, Mr. Childe would attach to repeal a proviso directing the I. C. C. "to investigate the reasonableness of the rates charged by the land-grant railroads on government traffic during a period of, say, three years after the repeal, and to require reductions of any rates found to be unreasonable and order reparation of any excessive charges paid by

the government.'

Aside from the conclusion recommending conditional repeal, the B. I. R. staff report is in the main an amplification of the land-grant-rate exhibit released by the board a little over a year ago and reviewed in the Railway Age of January 9, 1943, page 161. As summarized in the Webb letter, it favors repeal because the land grants "have long since served their intended purpose of promoting the development of unsettled parts of the country"; railroads which did not receive grants have had to enter equalization agreements in order to compete for government traffic; railroads collectively have made "adequate compensation" for the benefits received; the government would be on an equal footing with other shippers in bearing charges for support of the railroad system; shipper complaints of unequal opportunity in bidding for government business would be eliminated; all parties would be relieved of uncertainties and expense resulting from the complexities involved; motor and water carriers would be in a better position to compete for government business; and rate adjustments would be facilitated.

The report's figures on lands conveyed to the railroads puts the total at 179,284,978 acres, of which 130,401,606 acres were federal grants and 48,883,372 acres state grants. Rejecting the railroad contention that these should be appraised as of the time of the grant, the report calculates the value on the basis of the net proceeds from sales, plus an estimate of the value of lands still held. It arrives at a total figure of \$495,490,703, including \$434,806.671 in net proceeds from sales and \$60,684,032 as the estimated value of the 16,071,300 acres still held as of December 31, 1941. The value of the federal

grants is put at \$440,400,051.

Deductions Have Totaled \$580 Million

Against these figures are set the report's estimate of what land-grant deductions amounted to up to June 30, 1943. The total is put at \$580,000,000 of which about \$360,000,000 is estimated to have accrued between January 1, 1941, and June 30, 1943, and \$240,000,000 (or \$20,000,000 a month) during the closing 12 months of the period. Then there is added to the \$580,000,000 total the \$34,600,000 by which the Illinois Central's gross receipts tax, stipulated in the land grants to its charter lines in Illinois, is estimated to have exceeded what normal taxes would have been. Thus the "aggregate compensation that the railroads have made in return for the land grants" is put at "approximately \$615,000,000."

This figure is set against the land-value estimate of \$495,490,703, indicating that the railroads have not only made concessions sufficient "to cancel the public aid received from both the federal and state land grants but they had contributed to June 30, 1943, an additional amount of approximately \$120,000,000." The report then goes on, however, to note "an important qualification," i.e., that the proceeds from the lands were realized in large part years ago, whereas most of the rate concessions have accumulated "in very recent years." A consideration of the factor of interest charges on the "productive

capital" realized years ago made it seem "reasonable to conclude that the railroads had not, until very recently,

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made full compensation for the lands."

Next follows the discussion leading to a setting forth of the reasons why repeal is favored, as noted above. The disposition of the granted lands still held by the railroads is then considered, the report there holding that return of such lands to the government "would be a relatively modest concession" in return for the advantages railroads would gain by repeal. Furthermore, it is suggested that in discussion of the equities involved, the contrast between roads which have sold their lands and those which have chosen to hold them "should not be too sharply drawn." The former, it is pointed out, may have profited quite as much as the sellers by reason of income in rentals and royalties "over a long period of years."

The report does, however, anticipate that its proposal still might be regarded as one calling for "undue sacrifice" on the part of a few roads. Thus it suggests that all interested roads should find it possible to work out "an equitable arrangement" for sharing the burden. Finally, it comes up with the idea of postponing the effective date of repeal for a period during which the government would earmark land-grant deductions for the purchase of the lands from the railroads. A sufficient amount for this purpose would perhaps be accumulated in "about four or five months" under present conditions,

it is suggested.

Fletcher Speaks for Railroads

Meanwhile Judge Fletcher had made his presentation on behalf of the railroads. He recalled how the movement for repeal grew out of the recommendations of President Roosevelt's so-called Committee of Six which submitted its report late in 1938, and how the partial repealer was included in the Transportation Act of 1940. The latter left the deductions applicable on "the transportation of military or naval property of the United States moving for military or naval use and not for civil use," and on "the transportation of members of the military or naval forces of the United States (or the property of such members) when such members are traveling on official duty."

At the time, this was considered to be an important relief measure, for the decade of the 'Thirties had brought a large volume of non-military government freight, moving for the account of relief agencies and eligible for landgrant rates. As Judge Fletcher put it, the amount involved—about \$10,000,000 a year in deductions—was considered a "substantial burden." And the railroads were considered to have made a "very substantial concession" when they met the 1940 act's condition and relinquished their claims to lands still in dispute with the

go omment.

Then, the A. A. R. vice-president went on, the defense and war programs came along to make the \$10,-000,000-a-year of the 'Thirties look like "mere chicken feed"; and to introduce complexities and disputes as to what constitutes "military or naval property of the United States moving for military or naval use and not for civilian use." Although the 1940 act also provided for the payment of government freight bills prior to audit, Judge Fletcher pointed out that the government retains the right to claim a refund if land-grant rates are finally held applicable to traffic on which the commercial rate was collected. This reclain right, he went on, becomes "a very important chapter," in the land-grant story, because there is no limitation as to time. With the General Accounting Office already four or five

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years behind in its auditing, the prospective future demand for refunds "presents one of the most serious

aspects of the problem."

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Referring to the defeat of the 1942 repealer, Judge Fletcher thought that the principal trouble which its advocates encountered on the House floor grew out of a letter written to the Speaker of the House by the Acting Secretary of Agriculture, who felt that the railroads should give up the lands still held—at least lands within government reservation areas. He recalled that no Department of Agriculture representative appeared at the 1942 hearings, where the only opposition to repeal came from Colonel E. C. R. Lasher, deputy chief of the Army Transportation Corps' Traffic Control Division, who expressed the War Department's reluctance to give up the financial benefits of the deductions.

The A. A. R. vice-president expressed the hope that government departments in opposition would this time put in their appearance at the committee's hearings, and not wait for executive sessions or until the bill reaches the floor of the House. He didn't like to talk about a "stab in the back," but that is what the Department of Agriculture's 1942 performance looked like to him. Chairman Boren gave assurances that the subcommittee had sent hearing notices to all departments which could have any possible interest in the bill; and it will take for granted that any department which does

not appear has no opposition to express.

Judge Fletcher had not seen the B. I. R. report prior to the hearing, but he discussed at some length the figures contained in the exhibit out of which the report grew. Among such data were those showing that 98.3 per cent of the 15,840,077 acres of granted lands still held for sale, are owned by four roads. The Southern Pacific owns about 8,000,000 acres, the Northern Pacific, 4,800,000 acres, the Atchison, Topeka & Santa Fe, 1,784,000 acres, and the Union Pacific, 923,000 acres. The U. P., he pointed out is not a land-grant road; it received land but made a settlement with the government. Yet it is vitally affected because of equalization agreements.

N. P. Lands Covered by Mortgage

In the case of the Northern Pacific, he further pointed out, the lands are covered by the company's general mortgages, which it would be difficult if not impossible to get modified. The B. I. R. staff was not at all awed by these mortgages. "It should be possible," it said, "to effect the necessary release of grant lands from existing provisions of railroad mortgages, especially in view of the very substantial advantages which would accrue to the railroads and hence to their bondholders."

Aside from all such considerations, however, Judge Fletcher contended that it did not seem fair to require three roads to surrender land for the benefit of all roads in the country. The railroads, he assured the committee, have given "careful consideration" to the possibilities of making arrangements for the return of the lands; but "the difficulties were such that the idea had to be

abandoned."

Turning to the origin of the 50 per cent basis for land-grant rates, the A. A. R. vice-president told how the land-grant acts called for transportation of government freight "free of tolls," and how that was finally interpreted by the courts to mean without charge for the use of the roadway. The 50 per cent formula was worked out in the Court of Claims in 1879, and Congress later made it a statutory obligation of the land-

grant lines. Meanwhile, however, the railroads' investment in equipment has become relatively more important; and the B. I. R. report calculates that the same formula applied to recent years would call for a deduction of only 29.8 per cent for 1939, 30.7 per cent for 1940, and

35.7 per cent for 1941.

Representative Harris, Democrat of Arkansas, wanted to know how he might answer a question as to what justified enactment of legislation which would increase the government's transportation bill by \$200,000,000 a year. Judge Fletcher suggested that the government should be disposed to do "what is fair," not insist upon exacting its "pound of flesh." He added that attention should also be called to the fact that under the Interstate Commerce Act's section 22 the railroads are authorized to make contract rates on government traffic; and they have "never failed to respond to a government request for arrangements to handle war traffic." A. F. Cleveland, vice-president of the A. A. R. in charge of the Traffic Department estimated that the section 22 concessions are now running somewhere between \$150,000,000 and \$175,000,000 a year.

Potential Refunds Already Total \$175 Million

Coming to his discussion of the present confusion as to the applicability of the deductions, Judge Fletcher stated that because of these controversies, the bills against the railroads are mounting. The potential claims now total about \$175,000,000, according to a General Accounting Office source. Meanwhile, no railroad chief accounting officer "knows how to keep his accounts." The railroads are paying taxes—sometimes as high as 81 per cent—on amounts which may later be claimed as refunds by the government. In the latter connection Judge Fletcher went on to tell the committee how he has thus far been unsuccessful in convincing the ways and means committee and the Treasury that the tax laws should contain provisions permitting the railroads to recalculate their taxes for the years in which subsequently-refunded charges were collected. Thus the roads will have to pay the refunds "with no possibility for tax relief."

Furthermore, the A. A. R. vice-president continued, these demands for refunds may come in post-war years when the railroads are facing a serious situation. He cited the pending bill calling for a three-billion-dollar highway program, adding that water transportation will be active, while nobody knows what's going to happen

in the field of air transport.

With respect to commercial shippers, Judge Fletcher said, the land-grant proposition is so operated as to bring about the "greatest discrimination." Industries located off land-grant routes are deprived of the "natural advantages" of their location when it comes to bidding for government business in competition with industries on land-grant lines. The land-grant-rate law does this despite the fact that "nothing is better settled in the administration of the Interstate Commerce Act than that nothing must be done to deny to anyone the natural advantage of his location," he said.

Also he introduced several exhibits to show how the General Accounting Office requires that the land-grant deductions must be applied, "even though to do so requires figuring the rates by extraordinary and extremely circuitous routes." Once such example covers the application of land-grant rates on shipments from Nashville, Tenn., to Chicago, a distance of 446 miles by direct routes. Yet the land-grant rates are figured "via a



route which goes south clear to the Gulf of Mexico at Mobile, Ala., and thence back north all the way to Chicago, a total distance of more than 1,000 miles." It required 15 man-hours in the accounting department of one road to work out 14 tests required to bill for one shipment, Judge Fletcher said. He added that the road was then "very likely" to find that the "experts in the General Accounting Office" had reached a different conclusion.

Earnings on the Down Grade

Representative Sadowski, Democrat of Michigan, asked how the committee members might answer an argument to the effect that the railroads are unusually prosperous, despite the land-grant deductions. In reply, Judge Fletcher offered for the record a statement showing the financial results of recent years. He called attention to the downward trend of earnings which has prevailed for the past eight months, and mentioned authoritative estimates which expect 1944's net railway operating income to be 10 to 15 per cent less than 1943's and net income to be down 10 per cent.

Asked what the railroads would do with the augmented revenues resulting from repeal, Judge Fletcher suggested that they might accelerate the process of debt reduction which has been going on; but "more important" they would become better fortified with funds to rehabilitate their properties in the post-war period. He foresees "tremendous possibilities" for the modernization of equipment, and like opportunities for improvement of roadway facilities, "particularly terminals." Finally, the roads would like to maintain employment, thus making their contribution to what Judge Fletcher called "the one overwhelming problem that confronts the statesmanship of America.' They want to enter the post-war period with an industry that will have jobs for returning railroaders, and "appeal to the young men of the country" as well.

Trustee Scandrett of the Milwaukee told the committee that repeal would increase that road's revenues about \$10,000,000 a year on the basis of 1943 traffic, but \$8,500,000 would go back to the government in taxes. In addition to last year's deductions on that basis, the Milwaukee set aside a reserve of \$3,500,000 for possible refunds on items in dispute. This impact of land-grant rates on the Milwaukee, Mr. Scandrett said, results "almost entirely" from equalization agreements; although the road does have some little land-grant mileage.

He thinks repeal is justified because the land-grant deals would have been a good bargain for the government even if they involved no rate reductions; and, in any event, the government has received in deductions a sum "far in excess" of the value of the lands at the time of the grant. Also, Mr. Scandrett contended that the land-grant system operates unequally and unfairly as between railroads; discriminates between shippers; and imposes an undue burden on all shippers other than the government.

Depreciation Not Covering Plant Wear

Mr. Scandrett was followed by Representative May, Democrat of Kentucky, who responded to Chairman Boren's invitation and made a brief statement in support of the bill. Then came President Hill of the L. & N. who frankly conceded that the government would be within its legal rights in continuing land-grant deductions, but contended nevertheless that equity requires

cancellation of the contract. The "phenomenal job done by the railroads in the war effort," he said, is wearing out their plant at a rate not covered by depreciation allowances. And they have made "large expenditures for facilities which will not be needed after the war."

Thus, in Mr. Hill's opinion, they should be allowed "full compensation for their services to aid them in paying obligations already assumed and to enable them to create cash reserves to modernize their post-war plant and operations." Moreover, he pointed out, most of the roads are paying "very high tax rates," with the result that any increased revenues from government traffic "would immediately and largely be returned to the government through increased tax receipts."

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President Jeffers of the Union Pacific told how that road, built with the aid of a government subsidy including grants of land, paid its way "out of court" in 1897. Hence it is a land-grant road as to rates only because of the equalization agreements. Nevertheless, the deductions it made in 1943 amounted to \$25,000,000 on the basis of what it regards as a proper application of the land-grant rates; and an additional \$23,000,000 "may and probably will be claimed by the government as a kick-back" on items in dispute, Mr. Jeffers said.

The U. P. president went on to point out that industries other than the railroads are able to get their contracts with the government renegotiated on the basis of what is fair remuneration "without reference to what their profits may be from other business." The railroads, he added, are confronted with like problems "in aggravated form"; yet they have no recourse except to the Court of Claims.

Now Is Proper Time for Repeal

Asked by Representative Reece, Republican of Tennessee, if this were the proper time to seek relief, Mr. Jeffers said he thought it was—lest the railroads emerge from the war with the land-grant problem. "If something is not done," he added, "the railroads will be confronted with demands for refunds running into hundreds of millions of dollars." It was Mr. Jeffers' opinion that the deductions are now running "considerably in excess" of the \$20,000,000-a-month figure taken from the B. I. R. report.

Mr. Jeffers was followed in turn by M. D. Griffith, executive vice-president of the New York Board of Trade; Parker McCollester, counsel for the Chamber of Commerce of the State of New York; and George E. Mace, manager of the Transportation Bureau of the Commerce and Industry Association of New York. Each filed for the record a statement in support of the bill.

From the I. C. C. came Commissioner Mahaffie to present a report in favor of the bill which had been prepared by Commissioner Splawn, chairman of the commission's legislative committee, and unanimously endorsed by the commission. The report took the form of a letter which Mr. Splawn had written February 24 to Chairman Lea. After making various specific points against the land-grant-rate system under present-day conditions, it concluded as follows:

"There are many objections to the land-grant rates, but viewing the question purely from a practical standpoint we feel sure that the relations between the administrative officials of the government and transportation agencies of the country would be greatly improved by the immediate abolition of the land-grant rates in toto. It may be argued, as it has been in the past, that the government would suffer financially and some railroads might be unjustly enriched through such action. The income taxes now in effect and those which seem likely in the future furnish an answer to this



argument. The Interstate Commerce Commission has long been in favor of the discontinuance of the land-grant rates, and in our judgment the recent development before mentioned make this more desirable than ever."

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Representative Harris wondered if the commission had any authority to determine what categories of government shipments are entitled to land-grant rates, and whether the government and the railroads could get together on an agreement. Mr. Mahaffie pointed out that the I. C. C. has no jurisdiction over a contract between the railroads and the government. He then accepted a suggestion that repeal should bring about these results: (1) Lower freight rates for the general public; (2) higher revenues for the railroads, and consequently greater tax payments by the carriers; and (3) better service and facilities, as a result of greater resources and removal of uncertainty as to the amount of revenue to be retained.

He also agreed that the railroads would prefer to substitute section 22 quotations for land-grant rates even though the money involved were the same. Whereupon Representative Harris asked if repeal of section 22 were desirable also. Commissioner Mahaffie had "no mandate" to speak for the commission on that.

Labor Unions Favor Repeal

Martin H. Miller, national legislative representative of the Brotherhood of Railroad Trainmen, informed the committee that B. of R. T. President A. F. Whitney planned to file a statement which Mr. Miller understood would be favorable to the bill. Later on in the hearings presentations on behalf of railroad labor organizations were made by D. B. Robertson, president of the Brotherhood of Locomotive Firemen & Enginemen, and J. G. Luhrsen, executive secretary of the Railroad Labor Executives' Association. Both strongly urged repeal.

Mr. Robertson, identifying himself as a member of the Committee-of-Six, asserted his belief that Congress intended in the 1940 act "to remove all but a negligible element of the land-grant rate reductions." He added that "only the unexpected expansion of our military and naval establishments raised this minor factor to a dominant position in railway finance." Thus, as Mr. Robertson put it, "the need for complete repeal is today even greater" than it was at the time the Committee-of-Six reported. The present set-up, he said, "has a direct and unsettling influence upon the railroad industry, and adversely affects the welfare of railway employees."

Making a statement along similar lines, Mr. Luhrsen asserted that railroad employees do not want a repetition of conditions following the last war when employment dropped more than half. And labor "knows full well" that full employment cannot be provided at reasonable wages unless the railroads are in a position to finance their needs. Mr. Luhrsen can visualize a situation wherein the burden of land-grant deductions might impair a sound railroad employment and wage policy. Also, he noted that current-day subsidies to other agencies of transport are "notorious," while the railroads "stand on their own feet." Thus the "obsolete" land-grant contract should be cancelled.

Meanwhile Leonard C. Young, a member of the Montana Board of Railroad Commissioners and Public Service Commission, had presented the resolution favoring repeal which was adopted recently by the Mountain-Pacific States Conference of Public Service Commissions, as noted in the Railway Age of February 5, page 327. Then in turn came other favorable state-

ments from A. H. Schwietert, traffic director of the Chicago Association of Commerce and president of the Illinois Territory Industrial Traffic League, and H. A. Hollopeter, traffic director of the Indiana State Chamber of Commerce.

Mr. Schwietert expected shippers to benefit from repeal, either through a general rate reduction or further suspension of the Ex Parte 148 increases, depending upon the general state of railroad revenues. Chairman Boren seemed to be impressed with this witness' suggestion that the taxes paid by railroads on granted lands should be included, along with the rate reductions, in the amounts of compensation received by the government. The chairman remarked that it seemed only fair that taxes paid on lands still held should be remitted if such lands were to be returned to the government. Judge Fletcher agreed to furnish figures for the record.

Land-Grant Rates "Practically Friendless"

John B. Keeler, president of the National Industrial Traffic League, appeared for that organization and also for the Pittsburgh Chamber of Commerce and the Allegheny Regional Shippers' Advisory Board. He supported the bill, saying that shippers generally favor repeal, land-grant rates being "practically friendless" among them, for two basic reasons: (1) They result in discrimination between shippers and uncertainty on the part of a non-land-grant shipper as to the land-grant rate his competitor enjoys; and (2) shippers in general have to make up the deficit the railroads build up in favoring the government with special rates.

In effect, Mr. Keeler said, land-grant rates are a special tax on the railroads; and indirectly on commercial shippers. With respect to section 22 quotations, he said shippers don't like them either; and he predicted that the League would recommend repeal of that section at a later date. Another N. I. T. League presentation was made later by the chairman of its leigslative committee—F. F. Estes. Among other arguments in favor of repeal, Mr. Estes asserted that in general rate cases of recent years, the railroads have cited land-grant deductions as one of the reasons for their revenue needs. He also opposes section 22 quotations, being against any concessions to the government except in special cases of movements

The National Association of Shippers Advisory Boards was represented by C. J. Goodyear, national secretary. He spoke briefly to reaffirm that organization's view in favor of repeal. While the land grants were made originally to foster the development of the country, the effect of the rate reductions is now exactly contrary to this intent, he said. He explained that they so burden western and southern roads as to handicap them in competition with the rest of the country, thus retarding the growth of the territory the land grants originally were designed to benefit. This line of reasoning obviously appealed to members of the subcommittee representing these areas. Mr. Goodyear went on to say that the grants have served their purpose—"the government has got its bait back."

for relief following disasters or like emergencies.

John E. Benton, general solicitor of the National Association of Railroad and Utilities Commissioners, made a brief statement announcing that organization's support of the bill. He was followed by Vice-President Miller of the American Short Line Railroad Association, who said the Association's Class II and III members, with no land-grant lines among them, made 1943 deductions under equalization agreements totaling \$10,000,000.

It was Mr. Miller's contention that repeal would be



nothing more than the application of "the old rule of common fairness." He also objects to section 22, it being his opinion that the government is "just plain chiseling" every time its freight moves on land-grant rates, or it asks for a section 22 quotation. The Short Line Association vice-president went on to point out that many of the lines he represented were so-called marginal roads, which will need all the money they can now set aside if they are going to make up deferred maintenance and provide employment in the post-war period.

U. S. Chamber and A. T. A.

The position of the Chamber of Commerce of the United States in favor of repeal was reasserted by A. B. Barber, manager of its Transportation and Communications Department. He pointed out that the Chamber has "repeatedly" advocated the abolition of land-grant rates, its most recent expression being the resolution adopted at the latest annual meeting of May, 1943. Moreover, the Transportation Committee "a few days ago" reiterated the same recommendation. Colonel Barber said that the reasons for the Chamber's stand were outlined briefly in a report issued in February, 1942; and he

offered that report for the record.
"I may add," he went on, "that in the Chamber's consideration of this subject the opinions expressed in favor of repeal of the land-grant rates have been unanimous. If there were any doubt as to the entire fairness of their repeal from the viewpoint of the effect upon the costs of transportation to the government we should certainly have expected to hear from at least a few of our taxconscious members, but never has the slightest question

been raised by any of them.

Appearing for American Trucking Associations, Inc., Roland Rice, its general counsel, told the subcommittee how the present set-up "has developed into a problem of serious concern to motor carriers as well as the railroads, particularly during the past two years." He explained that many motor carriers have filed equalization agreements, because of their desire to obtain government traffic

and participate in the war effort.

Mr. Rice gave several examples of how land-grant deductions are calculated on the basis of the most heavily "land-granted" open route over which the traffic might possibly move. The examples were designed to show possibly move. The examples were designed to show "the uncertainties faced by the carriers in trying to figure what effect land-grant equalization might have on their Stressing the trucking industry's inability to stand the adverse effect of the deductions, he stated that the operating ratio of the Class I truckers had grown "to the alarming rate of 109.2 per cent in the month of December." A recent study indicates that "the percentage of land-grant refunds would amount to 15 per cent of total revenues" of a "representative group of carriers."

Commenting on Section 22, Mr. Rice suggested that the committee might later want to consider an amendment which would give the I.C.C. authority to promulgate rules and regulations governing the quotation under that section of special rates to the government. He did not advocate complete repeal of the section, for he does not object to its provisions for free or reduced-rate relief

transportation in time of disaster, etc.

Chairman Boren expressed his personal view that section 22 "merits the scrutiny" of the committee, and he found "no fault" with Mr. Rice's recommendation. He added, however, that a tie-in of the matter with landgrant repeal would perhaps not be the proper and practicable approach from the legislative point of view.

Giles Morrow, executive secretary of the Freight Forwarders Institute, told of the "great consternation" caused in the forwarding industry by a November, 1943, ruling whereby the Comptroller General now holds that if a forwarder handling government traffic uses a landgrant railroad the forwarder's charge to the government is subject to a land-grant deduction. Mr. Morrow pointed out that, "with possibly some minor exceptions," forwarders have never signed any equalization agreements; and they have "always assumed that they were not subject to land-grant deductions." Now they are faced with demands for refunds even on traffic handled prior to the November ruling; and the Comptroller General has advised that the remedy "if one be required, appears to be for determination by the Congress.

To Mr. Morrow, the position of the Comptroller General seemed "untenable" in view of the fact that landgrant rates were never applied to express companies until the formation of the Railway Express Agency. The ruling which has since then applied the deductions to express traffic, he added, made it "perfectly clear" that it was not a reversal of the Comptroller General's longstanding position, but merely a recognition of the fact "that the new express agency was operated entirely for

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the benefit of the railroads."

Because of the "very small margin" on which it operates, Mr. Morrow said that land-grant rates would "an impossible barrier" to the forwarding inpresent "an impossible barrier" to the fustry. Thus its "vital interest" in repeal.

Without asking that the Boren bill be "tinkered with" for that purpose Mr. Morrow went on to request consideration by the committee of an amendment to the Interstate Commerce Act's Part IV which would stipulate that the full commercial rates of forwarders apply on government traffic, unless there is an agreement in writing on some other basis. The provision, which would be retroactive, would relieve the forwarders of the necessity of meeting the pending government demands for refunds.

Under present conditions, as Mr. Morrow put it, the forwarders "have unknowingly acquired obligations the financial extent of which, while as yet unknown, may well prove disastrous to the industry.'

O. D. T. Still Wants Repeal

Chairman Boren announced that the Office of Defense Transportation had advised that it is still of the opinion that land-grant rates should be repealed. Also, a letter which Mr. Boren put in the record was received from Acting Director C. D. Young. The letter summarized O. D. T.'s views to the effect that repeal would facilitate its work of negotiating rate adjustments in the interests of the war program; facilitate and simplify negotiations in connection with section 22 quotations on government traffic; make possible a saving in manpower by the carriers and the procurement and accounting agencies of the government; give government agencies more latitude in determining the mode of transportation best adapted to perform services required; and improve generally the financial condition of motor carriers, many of which are in a "precarious financial situation."

The letter went on to say that the O. D. T. recommendation favoring passage of the bill "is not to be considered as in accord with the program of the Administration, but represents only the view, for the period of the war, of the Office of Defense Transportation." Opponents of the bill were scheduled to appear at the hearing's

closing session on March 23.

Railway Age-March 25, 1944

Railroads-in-War News

Proposes Integrated Control of Lumber

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W.P.B.'s plan for balancing demand and supply said favorably received

A proposed plan to establish an integrated control over the distribution of lumber, presented to eight lumber industry advisory committees last week, was favorably received, according to reports from the War Production Board. The general purpose of the plan is to balance demand and supply. One of the chief difficulties in achieving this balance, up to the present time, has been the lack of accurate over-all information on demand, W. P. B. officers said. Existing lumber orders control some, but not all species, and in some instances part, but not all production of a particular species.

Preliminary estimates of requirements for 1944 are 35,500,000,000 board feet. Production, which is limited by manpower and equipment shortages, probably will not exceed 31,000,000,000 board feet. The gap between consumption and production cannot be filled by withdrawals from stocks since these are already dangerously low.

Chief provisions of the proposed lumber control plan, as presented in retail lumber retail distributors' and lumber wholesale distributors' industry advisory committee meetings, follow:

All consumers of lumber with the exception of those using less than 50,000 board feet per quarter will file quarterly summaries of requirements. These, in the aggregate, will show the demand for lumber per quarter, broken down according to use. Purchase orders will be subject to W. P. B. authorization, with some exceptions. Authorization will be given for specific quantities and species in accordance with known supply and relative essentiality of use.

To meet the special needs of different types of lumber consumers, somewhat varying procedures are established for each of the ten major consuming groups, including boxing, crating and dunnage; manufactured wood products; civilian construction; building repair; railroads, mines, utilities, etc.; Army, Navy and Maritime Commission; export; small industrial consumers; farmers, civilians, retail stores, etc.; distribution and retail yards

tion and retail yards.

Consumers of lumber used for (1) boxing, crating and dunnage; (2) manufactured wood products; (3) railroads, mines, utilities; and (4) military contractors and subcontractors will obtain lumber by filing quarterly applications for authorization to purchase specified quantities of specific types. Lumber for civilian construction

Freon Scarcity Promises Hot Cars This Summer

As a result of heavy war demands for freon, a chemical refrigerant, air conditioning of railroad equipment will be curtailed this summer, C. D. Young, acting director of the Office of Defense Transportation, has announced.

"Supplies of freon which were formerly used to air-condition rail-road cars are now being used by our fighting men to kill mosquitoes," General Young said. "After sufficient supplies to meet the needs of the armed services had been set aside, the amount available for civilian use was materially reduced." Additional supplies are in prospect for later in the year, he added, but may not be available in time to change the situation as far as air-conditioning railroad equipment this summer is concerned.

"The War Production Board has limited the present use of freon to sealed cars," General Young said. "In sealed cars the windows are permanently fixed and cannot be opened. Sealed cars account for 4,600 of the 8,000 mechanically air-conditioned railroad cars. Appeals may be made to the W.P.B. for freon for use in unsealed cars, but there is little prospect that much of the refrigerant will be made available for such use."

will be authorized when construction applications are approved under Order L-41. Building repair lumber will be subject to present controls as, for example, L-41 and Controlled Materials Plan Regulation No. 5 for maintenance and repair.

Republicans Warn Followers to Avoid Convention Jam

The chairman of the Republican National Committee, Harrison E. Spangler, has issued an appeal to prospective visitors and sightseers who might wish to come to Chicago from other points for the national convention of that party in June to "remain home in the interest of the war effort, to help solve the transportation and housing problem incident to the convention."

The statement pointed out that the official business of the convention "is an essential instrument of representative government," and went on to explain that the problem of providing train service and accommodations for those who have duties at the meeting will be "tremendous," yet must be handled with as little additional strain as possible upon the "already overburdened transportation system."

How Things Are on Britain's Railways

Albion's carriers have some of our cares and, it seems, a few of their own

Quoting from figures released only two days before his departure from England six weeks ago, T. D. Slattery, general traffic manager in the U. S. A. for the British Railways, on March 17 told the New York chapter of the Railway Locomotive & Historical Society something of the achievements of the British railways in the biggest transport job in their history.

They have been engaged, he said, in a battle "which has involved millions of people and thousands of tons of supplies, not only from the home front but all the fighting fronts." "The field of battle," he explained, has been the "whole rail transport network of Great Britain," and the equipment has included 50,000 miles of track, 20,000 locomotives, 64,000 passenger cars, 1,250,000 freight cars and a total staff of 668,000—114,000 being women.

Suggesting that while "figures give but the bare bones of the story," Mr. Slattery does believe they point to what has been accomplished. He stated that since the war began in 1939 the miles run by trains operated by main-line railways have totaled 1,265 million, and in the performance of these hauls, locomotives have chalked up a locomotive mileage of 1,870 million.

More Travel, Fewer Trains—In 1942, main-line railway passenger travel totaled 30,000 million passenger-miles, an increase of 50 per cent over pre-war, and since there was a reduction of 28 per cent in mileage run by passenger trains, loading was more than doubled. Figures for 1943, he said, show even greater increase.

British railways, Mr. Slattery reminded his audience, have operated under "the worst possible conditions," contributory factors being the intricate system of junctions—with more in relation to route mileage than in any other country—the constant air raids and operation under total blackout.

In less than three years 160,000 special trains have been run for troops and equipment, while today, the speaker noted, "they are running no less than 5,000 troop trains per month." In 1943, one railway broke its previous record by running 19,000 special troop and armament trains, in addition to its ordinary passenger and freight services. This company, it was explained, "had to provide 20,000 cars for troop trains alone, while guns, tanks, explosives and the like needed 490,000 freight cars, 200,-000 more than in 1942.

Weekly, 7,000 special trains are run to

carry workers to government factories. To one factory alone, 58 trains are run daily, and at the peak period 10 trains leave within 20 minutes.

No Travel Rationing—The traveling public has been called upon to make many sacrifices, Mr. Slattery observed, current travel conditions being far removed from peacetime comforts. On many trains, one is considered lucky to get a "standing-up seat." Dining cars before the war numbered 870; last month, the figure was 65. Many trains lack water supplies, and the wise traveler brings his own food and drink.

While there has been the customary talk of some sort of train rationing, it has been turned down for three reasons: (1) complexity of the scheme; (2) the need for a tremendous staff were it to be applied; and (3) the inconvenience and upset to business men who must travel.

In three years of bombing, the British railways have lost 50 trains through raids, the group was told. There have been 100,000 railwaymen released to the services, and 105,000 women are now employed on work formerly done by men. Remarking upon the jobs now held by women—laborers, locomotive cleaners, shop workers, signaling and telegraph, in fact work of all kinds—Mr. Slattery referred to them as "a marvelous collection." Prior to the war, he said, some had been court dressmakers, crooners, music hall (i.e., vaudeville) performers.

A Blitzed Railway Flag-Following the address, there was displayed the British flag which had hung over Waterloo station, London, throughout the "blitz." grimy and sooty, it was mute evidence of Britain's battle during a particularly diffi-The flag had been sent to the cult stage. British Railway office in New York with the following note from E. J. Missenden, general manager of the Southern Railway (England): "I hope that it may symbolize for those Americans who happen to see it the spirit of Britain and its railway-men and women. We have so many friends on your side of the Atlantic that we shall be happy to think of it taking its ease in the United States after its strenuous existence

Shown also was a sound picture, produced by the Southern, and illustrating the variety of work performed by women on British railways.

"Orienting" American Railroaders in Britain

How American transportation corps officers are prepared for their duties upon arrival in the British Isles is indicated in an orientation address delivered to them by Colonel N. A. Ryan (formerly general manager, C. M. St. P. & P.), acting chief of transport, Military Railways, European Theater of Operations. Notes from the address, appearing in a recent issue of the "Railway Gazette" (London), quote Colonel Ryan as expressing his admiration for British railway operating methods and efficiency under conditions peculiar to their locale, as well as his caution against using American methods as a standard for comparison. He suggested the newly-arrived

Young Pays Tribute to Eastman's Memory

Designated by President Roosevelt as Acting Director of the Office of Defense Transportation, as noted in last week's Railway Age, Brig. Gen. Charles D. Young, U.S.A. retired, paid tribute to Mr. Eastman, his predecessor, as follows:

"Mr. Eastman is a war casualty: he refused to measure out his strength in the face of need. His death is more than a personal loss to us; it is occasion for a nation's sorrow. He was deeply appreciative of the fine and loyal service of all of us who served with him, in the field no less than in Washington. We can do no other, in recognition of his unselfish and splendid work, than to close ranks and seek even more earnestly the attainment of the goal for which Mr. Eastman gave so generously—that transportation shall not

officers withhold their criticism of the British system until they had become "thoroughly familiar" with Britain's operating conditions. He observed that—the British and the American transportation corps not having been "averse to learning" from the other—they had "proven a great team."

fail a nation and a world in need."

Useful Facts for the Uninformed-Colonel Ryan outlined for the newly-arrived officers the British railway situation, imparting to them the traffic and transportation reasons for the "apparent small size of the railway equipment." Explaining the amalgamation 21 years ago of the British railways into four principal companies, Colonel Ryan gave this amalgamation credit for the present "fluidity" of railway transport in England. He observed: "One can reach almost any point via parts of several routes, all of the same or different railways, which is a great advantage in wartime to reduce density on any one line and keep supplies and personnel moving, even though one part of the route may be blocked through enemy action or accident."

The American Army's transport needs in Britain are arranged in accordance with the so-called Inter-Service agreement, which Colonel Ryan calls the transport man's "Bible." Both the Transportation Corps and the British Ministry of War Transport entered the agreement after thorough closeness of their respective points of view.

Advising the newcomers as to the proper approach to their assignment, he called for "good sound sense" in organizational work by all transportation corps officers. He cited the case of the superintendent of the line of one railway (a job comparable to chief operating officer in this country) calling him personally about a standard-size refrigerator car which had been ordered to move a shipment at a constant temperature of 40 degrees. Knowing that British climatic conditions prevented the fulfillment of such a request, Colonel Ryan further looked into the matter, and discovered

the shipment to be moved was a 4-lb. package of serum. Illustrating the "foolishness" of the request for a whole car for such a shipment, the colonel explained that the serum was finally disposed of in dry ice, in a package carried by a soldier.

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O. D. T. Gives Rail Tonnage Data

The nation's railroads received a total of 1,538,984 tons of new steel rail during the calendar year 1943, the Office of Defense Transportation has announced. This total compared with 1,260,000 tons allocated in 1942. The 1921-1929 average of new rail placed in tracks was 1,855,432 tons a year, while the 1930-1938 average amounted to 784,943 tons, according to the O. D. T. For 1944, the War Production Board has been asked to allocate a total of 2,200,000 tons.

As rail mills are running at capacity, it now appears that the railroads may experience some difficulty in laying all of the rail that is made available to them during the coming months, the announcement pointed out. The following table gives the allocation of new rail during 1943 by geographical regions:

Region	Tons
Northeast	41,897
Great Lakes	200,675
Central Eastern	219,330
Pocahontas	74.078
Southern	266,141
Northwestern	162,217
Central Western	387,091
Southwestern	162,149
Short Lines, Terminals, and Others	25,406
Total 1	.538,984

Southern Wins Ad Award

The Southern has received one of the first certificates of merit given by "Wartime Advertising Awards" for a newspaper advertising campaign "contributing to the welfare, security and activity of the nation at war."

"I'm tired tonight—and I'm proud of it" headlined the Southern advertisement singled out for this special recognition.

Signed by President Ernest E. Norris, the prize-winning advertisement emphasizes the contribution which railway employees are making to the war effort by their unrelenting toil—keeping the wheels rolling under the biggest transportation load in all the long history of the Southern System.

V. V. Boatner to Leave O. D. T.

The resignation of Victor V. Boatner as director of the Division of Railway Transport of the Office of Defense Transportation will become effective April 1, Brig. Gen. Charles D. Young, acting director of the O. D. T., announced this week. Mr. Boatner has held this post since it was established. He will be succeeded as acting director of the division by James H. Aydelott, now its deputy director.

Mr. Boatner's resignation, to become effective March 1, had been submitted to the late Joseph B. Eastman before the latter on February 19 entered the hospital. However, as noted in Railway Age of February 26, page 429, he had at that time acceded to Mr. Eastman's request to defer his departure from the division directorship, but he has now informed General Young that the pressure of his private affairs will require him to give up his active service with the organization at the end of

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this month. He will continue to be available in an advisory capacity whenever it becomes necessary to call upon him, it was explained.

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"Mr. Boatner's services have been of invaluable assistance in waging the battle of transportation on the home front since Pearl Harbor," said General Young. "The railroads today are carrying the greatest load in their history and with much less equipment than they had in the last war. For that accomplishment a great deal of credit goes to Vic Boatner. He has handled many seemingly insoluble problems during his long stay with the O.D.T., and his services will be greatly missed."

The appointment to the post of deputy director of the Division of Railway Transport of Mr. Aydelott was announced in Railway Age of July 24, 1943, page 188, at which time were published a photograph and a sketch of his career. After more than 40 years in the service of the Chicago, Burlington & Quincy, he had attained the position of that road's general manager, lines east, when he was appointed to the 0. D. T. position.

U. S. London Railway Club **Fetes British Hosts**

Some of the U. S. Transportation Corps and Military Railroad Service officers in England were hosts to a "token group" of British railway leaders at a dinner at the Transportation Club in London on February 14 (as reported in the Railway Gazette of London). The club is provided

by the British railways for the convenience of Canadian and U.S. transportation officers while in England, and the dinner was tendered by the Americans as an expression of their appreciation of this facility.

Colonel Norman A. Ryan (formerly general manager, Milwaukee, and now assistant chief of transportation for the E. T. O., U. S. Army) presided and read messages from the following American railway executives: J. J. Pelley, M. W. Clement, R. B. White, E. J. Engel, and H. S. Palmer. Response was made by Sir Ronald Matthews, chairman, Railway Company's Association; Sir James Milne, general manager, Great Western; and Lord Ashfield, chairman, London Passenger Transport Board.

Prepare for Early Movement of Coal in Midwest

In preparation for a co-operative effort to meet a threatened bituminous coal shortage in the 1944-45 season which Solid Fuels Administrator Ickes has warned may amount to 20,000,000 tons, the Office of Defense Transportation this week called upon all regular users of middlewestern coal to place their orders immediately for delivery at the earliest possible date, while at the same time permits were being issued covering railroad movements to lower Great Lakes ports of certain grades of coal in advance of the opening of the 1944 navigation season.

Calling attention to the expectation that the lakes shipping season will open early this year, with the first boats for upper lake docks probably clearing lower lake ports by the end of March, Mr. Ickes explained that pre-season permits for coal movements are being issued, where boats are available for immediate dumping of coal from cars into the vessels, in order to prevent any avoidable detention of cars.

In contrast to conditions prevailing last vear, when ice interfered through April with the opening of navigation, it is expected that the season will begin before the average date, which is around April 15. In 1942, the lake shipping season was opened about the middle of March, one of the earliest openings on record.

Why an Early Start Is Wise-In view of the bituminous shortage that has been predicted, the O.D.T. pointed out that other demands upon the mines and upon the railroads may prevent later delivery of coal from midwestern mines to midwestern users. While it has been the usual practice to place such orders and make such deliveries later in the year, action should not be deferred this year, said Brig. Gen. Charles D. Young, acting O.D.T. director, because mines in that area may be called upon later to make up deficits in the supply middlewestern consumers ordinarily obtain from other territories.

It was explained that it is imperative that railroads serving the midwestern states be permitted to transport the normal coal load at the earliest possible date so they will not be overburdened later, when the normal fall peak period is reached. The

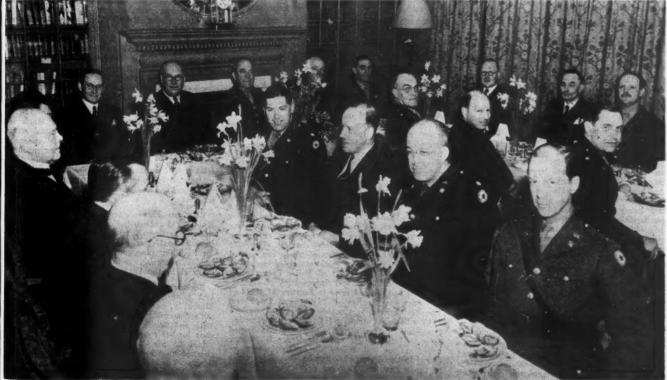


Photo courtesy Railway Gazette (London)

Hosts and Guests at Transportation Club, London

AROUND OUTSIDE OF TABLE (L. to R.): Col. H. Rudgard (S. M. P., L-M-S Ry.), Major C. E. Page (Mo. P.), J. A. Kay (editor, Railway Gazette), Lt. Col. S. H. Bingham (N. Y. City Transit System), Sir James Milne (Gen. Mgr., G. W. Ry.), Sir Ronald Matthews (chairman, L. & N. E. Ry.), Colonel Norman A. Ryan (C. M. St. P. & P.) presiding, Lord Ashfield (chairman, London Passenger Transport Board), Brig. Gen. Frank S. Ross (T. C.), Sir Charles Newton (chief gen. mgr., L. & N. E.), T. E. Thomas (gen. mgr., London Passenger Transport Board), Major A. C. Bonaffon (Penna. R. R.)

Between Tables, Front Row (L. to R.): Lt. Col. W. M. Snow (N. Y. Central), K. W. C. Grand (asst. gen. mgr., G. W. Ry.), Major E. J. Finnegam (Penna, R. P.), Major E. H. Boykin (L. & N.). Back Row: Lt. Col. W. S. Carr (New Haven), John Elliot (deputy gen. mgr. So. Ry. of England), Major H. L. Phyfe (A. A. R.). Present but Not in Picture: Capt. J. N. Langfitt (Ill. Cent.).

O.D.T. appeal is designed to get coal moving to regular users in that section in April and May, when ample supplies are expected to be available. While a large part of the coal consumed in the middlewestern territory ordinary comes from West Virginia and eastern Kentucky, those producing areas this year will have to meet heavy demands from other parts of the country and also, possibly, for export. It will be urgently necessary, therefore, according to General Young, in order to facilitate a uniform flow of coal in all directions, to get the movement in the middlewest under way earlier than usual.

O. D. T. Booklet Outlines Draft Deferment Procedures

Designed particularly to help smaller operators in the transportation field, the Division of Transport Personnel of the Office of Defense Transportation has prepared and is distributing through its Washington office a booklet outlining steps to be followed in requesting occupational deferments for employees and the process of appealing individual cases under current Selective Service regulations.

I. C. C. Service Orders

By Service Order No. 187, effective March 20, the Interstate Commerce Commission, acting upon advice from the War Food Administration, has prohibited railroads from accepting or moving refrigerator cars loaded with potatoes, other than sweet potatoes, grading below U. S. Commercial or below 80 per cent U. S. No. 1 quality, from any point in Connecticut, Maine, Massachusetts, Michigan, Minnesota,

New Hampshire, New Jersey, New York, North Dakota, Pennsylvania, Rhode Island, South Dakota, Vermont, or Wisconsin. A similar prohibition was ordered to apply to refrigerator car movements of potatoes, other than sweet potatoes, grading below U. S. No. 2 grade, 1½ in. minimum, from any point in California, Colorado, Idaho, Montana, Nebraska, Nevada, Oregon, Utah, Washington or Wyoming.

This order further provided that railroads should not move or accept refrigerator cars loaded with potatoes, other than sweet potatoes, which are of or above the prescribed minimum grade unless or until the shipper presents a federal state inspection certificate or a written assurance that the shipment meets the prescribed grade requirements.

Certified or "war approved" seed potatoes of any grade are expected from the restrictions against the use of refrigerator cars, however.

It was explained that potatoes grading below the minimum standards prescribed in the order are being diverted to the manufacture of starch, feed, alcohol, or other processed products, for which purposes it is not necessary to transport them in refrigerator cars, which are urgently needed for other purposes.

Service Order No. 188, effective March 25, required the State Belt Railroad of California to apply stated demurrage charges on refrigerator cars detained for loading or unloading in connection with the transportation of any commodity in intraterminal movements on its line, the charges to begin at the rate of \$2.20 per day after the expiration of 24 hrs. free time and to range up to \$44 per day.

Materials and Prices

The following is a digest of orders and notices that have been issued by the War Production Board and the Office of Price Administration since March 10, and which are of interest to railways:

Cast Iron Soil Pipe—Schedule IV to L-142 was amended March 15, to allow the production of extra heavy cast iron soil pipe (prohibited since June 1, 1942) for maintenance and repair purposes, because there are large stocks of extra heavy fittings that cannot be disposed of unless extra heavy pipe is provided, and because plumbing codes of numerous municipalities require extra heavy pipe. No additional manpower or new facilities will be required to produce this pipe; although additional cast iron will be required for production, present supplies are sufficient to meet the need, WPB said.

Hand Tools—Restrictions on the use of alloy steel in hand-operated wood and special purpose saws were removed March 16, in an amendment to Schedule III of L-157.

Industrial Power Trucks—To improve the quality and performance of industrial power trucks, restrictions on the use of synthetic rubber for anti-motor-vibration plates, lead for counterweights and steel plates for battery boxes were lifted on March 16. The action is covered in an amendment to L-112, which also provides that appeals from provisions of the order shall now be filed at the WPB field office located nearest the plant of the appellant, instead of being filed in Washington.

Plumbing and Heating Equipment—AA-3 rated orders for plumbing, heating and cooking equipment placed prior to January 15, will take precedence over lower rated orders which have been of L-79 (Plumbing, Heating, and Cooking Equipment) as amended on January 15. This action was taken by WPB, in Direction No. 1 to L-79,

to eliminate any danger of delaying National Housing Agency projects because of disrupted schedules of delivery of required items, WPB explained. The NHA, whose orders are rated AA-3, had placed a considerable number of orders for plumbing, heating and cooking equipment prior to January 15, when L-79 was amended to allow lower rated orders from distributors to be re-rated AA-3. Since PR No. 12 gives retroactive effect to such uprating, NHA orders were being delayed because suppliers were filling old orders which had been uprated to the AA-3 level with NHA orders.

Power Boilers—Limitation Order L-299 was amended March 10, to provide that no person shall produce, fabricate or deliver any power boiler (except boilers for locomotives or marine service or miniature boilers) having a greater metal thickness or quantity of steel than needed to meet the minimum thickness requirements of Section I (Edition 1943) of Boiler Construction Code, and Addenda and Interpretations (including Case 968) issued prior to January 15, 1944 of the American Society of Mechanical Engineers. The restrictions previously were based on the 1940 edition of the ASME boiler Construction Code and Addenda and Interpretations issued prior to July 1, 1943, the date Order L-299 was issued. Case 968 defines the safety factory required in the design of power boilers. Exceptions to production and delivery restrictions are continued unchanged in the amended order.

Refrigerating Equipment—Specifications for refrigeration condensing units for industrial and commercial refrigeration and air conditioning machinery and equipment (Schedule II, L-126) were revoked March 10. The most important feature of the action was the removal of the prohibition on the use of steel in the construction of bases for refrigeration condensing units having motors over 20 h.p. Revocation of this restriction will save valuable manhours formerly re-

quired to erect concrete bases at the time of installation of the unit, WPB explained. The original purpose of this provision was to conserve steel, but now that the type of steel required is generally more available, it is considered more important to conserve manpower. This action also removed standardization restrictions which limited the number of models that each manufacturer could produce.

Steel Pipe—Specifications for the manufacture of steel pressure pipe were modified on March 11, to bring them into conformity with recent changes in basic pressure pipe specifications, by an amendment to Schedule 11 of L-211.

Synthetic Lacquers—Users of synthetic resin finishes, lacquers and lacquer thinners were notified, on March 10, that they must give complete end-use information to their protective coating supplier, when placing orders for these products. Users' end-use information should accompany purchase orders. This should be stated in specific rather than in general terms and should refer to the product or item to be painted. End-Use List WPBI-217 may be used as a guide for the type of end-use information considered adequate. For certain special coatings (those containing phthalic alkyd resins, phthalate plasticizers, ethyl cellulose, chrome pigments and certain other critical raw materials) in addition to end-use information, contract and specification numbers are required before allocations can ordinarily be made, it was pointed out.

Wire Fencing—The revocation of Schedule 3 to L-211, on March 16, removed the restrictions formerly applying to barbed wire and woven wire fencing. The necessity for these restrictions has passed as the types of steel required for these products are not in heavy demand for the direct war program. There will be practically no increase in manpower demands since this revocation will result chiefly in transfers of labor from one type of operation to another. The revocation will permit the manufacture of heavier gauges and a return to standard weights of zinc coating.

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Corundum—The WPB has issued a small order exemption from allocation for users of corundum. This change was effected by amending Conservation Order M-89. The amended order exempts deliveries up to 25 lb. per month of finely ground corundum of all sizes, provided the consumer does not have an inventory in excess of his average 60-day consumption. This amendment will have little or no effect except the elimination of considerable paper work, since applications from small users usually have been approved in the past.

Metal Stampings—Amendment No. 110 to MPR 136 (Machines and Parts, and Machinery Services) effective March 18, adds metal stampings to the list of articles covered by the regulation establishing maximum prices for machines and parts. This action will simplify the determination of maximum prices by the industry by placing all stampings under coverage of a single regulation. The transfer will mean no change in prices.

Southern Pine—Amendment No. 3 to Second RMPR-215 (Distribution Yard Sales of Softwood) effective March 16, provides increases of from \$2 to \$7 per M. b. m. in mill ceiling prices for Southern pine common board and dimension lumber, flooring, ceiling, siding and partition material in the lower-priced grades.

Southern Pine—Amendment No. 1 to MPR-19A (Log-Run Southern Pine Lumber) effective March 16, authorizes small southern pine lumber mills (sawmills that cut 4,000,000 ft. or less in 1943 and have no planing mills or usually sell their lumber rough) in Virginia to charge log-run prices \$2 per M. b. m. higher than may be charged by other small southern pine mills in the South. The increases were granted, OPA said, to bring Virginia log-run southern pine prices in line with those for "on grade" lumber sold by larger Virginia mills, for which an increase of \$2.50 per M. b. m. was recently authorized. The increases were granted to compensate for labor and timber costs higher than those in other Southern States. The ceiling prices established for Virginia small mills for log-run rough shortleaf southern pine lumber are \$34 per M. b. m. for boards, \$31 for dimension lumber, and \$30 for small timbers. These prices include delivery for 30 miles or less.

GENERAL NEWS

Defends Orders on Promoting Negroes

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Ross says carriers and unions should persuade rank and file to be tolerant

The President's Committee on Fair Employment Practice discharged its responsibilities under the executive order creating it when it issued "directives" against certain southern railroads and railway labor unions calling upon them "immediately" to cease discriminations against negroes which the committee found to exist—and which "findings of fact were based on evidence and have not been controverted"—according to a statement by Malcolm Ross, F. E. P. C. chairman, to the so-called Smith committee of the House, that is, the select committee authorized "to investigate acts of executive agencies beyond the scope of their authority."

Mr. Ross' statement was a detailed reply to assertions made to the Smith committee by Sidney S. Alderman, general solicitor of the Southern and counsel for 10 southern railroads which the F. E. P. C. charged with discriminatory practices, that the F. E. P. C. had exceeded its authority and had adopted a course more likely to aggravate than to solve the broad problem of race discrimination.

Some of the points made by Mr. Alderman were noted in *Railway Age* of March 11, page 519.

Ross Advises "Persuasion"—While it has fulfilled its duties with respect to these cases, said Mr. Ross, the F. E. P. C. believes that practical and peaceful solutions of the issues raised can be had, and it subscribes to the hope expressed by both the President and the committee headed by Judge Stacy—which the President appointed to consider the next step in the "impasse" resulting from the southern roads' refusal to comply with the F. E. P. C. "directives"—that such results can be attained.

Mr. Ross' reply took the form of a 34-page single-spaced mimeographed statement in which he analyzed in detail Mr. Alderman's arguments, and other points made about F. E. P. C. procedures and jurisdiction, and set forth his views on the questions thus raised. The F. E. P. C., he said, is obliged to apply a national policy to 48 states which vary widely in their views on what constitutes equal economic opportunity for minority groups. "The only sane course is to tackle discrimination where it occurs. . . . Experience, however, proves that there are strong and effective remedies against discrimination in any

form and from whatever cause. Either a forceful employer or a forceful union—preferably both—can persuade the rank and file that discrimination is un-American, destructive of war manpower effectiveness, short-sighted from a labor union viewpoint, and calculated to destroy the war morale of those who are its victims."

Power to Issue Orders-Much of Mr. Ross' statement dealt with the contention of Mr. Alderman and others that the F. E. P. C. had no authority to issue "directives." In the clause in the executive order which instructs the F. E. P. C. "to take appropriate steps to obtain elimination of such discrimination" as it discovers, its chairman found ground for going beyond fact-finding to "directives" to desist from alleged discriminatory practices. Mr. Ross went on to say that none of the "directives" required the railroads to employ negroes in any categories. What they required, he asserted, was a change in employment policy that would assure that qualified negroes would not be barred from future vacancies because of race.

No program of gradual education was needed to bring about this change in policy, he said, and he added: "The legal aspects of the committee's directives are not unmixed with the practical question whether the railroads, in attempting to comply to the directives, would disturb both their workers and the traveling public. That this would be the result has been a leading contention of the carriers. . . . It is submitted that the accent placed on the prospect of trouble should negroes be upgraded as engineers and conductors tends to draw attention away from solutions of a problem which is certain to be a continuing source of difficulty until the carriers and the unions address themselves to it."

I. C. to Award Prizes for Victory Gardens

To encourage its employees to have Victory gardens this year, the Illinois Central is offering prizes for the best Victory gardens as follows: First prize, a \$100 war bond; second prize, a \$50 war bond; third prize, a \$25 war bond; and 12 other prizes, each consisting of \$10 in war stamps. Employees who do not have suitable space for a garden, have been advised that they can apply to their local agent for land on the Illinois Central right of way, which will be made available free of charge for this purpose.

To enter the contest, it is necessary for the employee to have a garden 20 ft. by 40 ft. or larger, and to submit his entry before October 31 in the form of a letter or story, telling of the garden and the vegetables consumed and canned. If possible, a photograph of the garden and a drawing or blueprint should be added to the entry.

Canada to Divorce RRs and Airlines?

Government insists on socialized monopoly for all large airlines

Air transportation in Canada—except for small, local operations—must be a socialized monopoly of the Dominion government; and railway participation in such business will not be tolerated. The government-owned Trans-Canada Airlines, now operated as a subsidiary of the Canadian National Railways, must be divorced from its railway connection; and the Canadian Pacific Railway must part with control of its airline. Such is the edict of the Administration now in power in Canada—the "death sentence" to what is perhaps the world's most thoroughgoing and promising example of transport co-ordination having been pronounced last week at Ottawa by Munitions Minister C. D. Howe.

The contribution of Canada's railways

The contribution of Canada's railways to airline development in Canada was described in the Railway Age of December 18, 1943, page 974, in an article by C. H. Dickins, vice-president and general manager of Canadian Pacific Air Lines. A map of the railway-owned airlines in the Dominion was included—the C. N. R. line being a cross-country, east-west route, with the C. P. R. operating the north-south "feeder" lines.

Its Scope Is World-Wide-The Canadian Pacific-which is not just a railroad but has long been a world-wide transportation company, with its steamships which have meant so much to the Dominion and to the Empire in their war effort-had announced its post-war purpose of also extending its airline operations on a worldwide basis. Both of Canada's large railways are operators of highway vehicles, of hotels and telegraphs, as well as as offering railway and steamship service. Notwithstanding this promising progress with integration of all forms of transportation under the aegis of two actively competing corporations—one government-owned and the other private—it must now all go into discard within a year after the war ends, if public opinion in the Dominion sustains the present government in its "death sentence" declaration.

In pronouncing this dictum, Minister Howe reviewed the development of air transport in Canada. In the first year of the war, he said, the small, independent airlines (serving gold fields primarily) became unprofitable and sharply curtailed their operations. The C. P. R. came along and bought up these lines, "thus obtaining by the end of 1941 a monopoly in the field

of transportation by air except for Trans-Canada Airlines." Since 1941 one other company has entered the field in the Maritime provinces, but this is the only air transport operation in the Dominion not now under control of either the C. P. R. or the C. N. R.

The building of the Alaska Highway, the Minister continued, was served by the C. P. R. airlines and this activity boosted its traffic. Furthermore "that company was assisted by the United States Army in obtaining new and modern airplanes . . . at a time when all other airlines on this continent found it impossible to buy new

equipment."

Such development, Mr. Howe went on to say, was not at all what the government of Canada had contemplated. He frankly admitted it to be the government's policy that main-line air transport in Canada should be a socialized monopoly, not operated for profit. He "regrets to say" that the railway-owned airlines have not acquiesced in this policy, but the C. P. R. airlines "lost no time in challenging the non-competitive position of Trans-Canada Air Lines, and in reaching out for new franchises." "In the old days," he said. "In the old days," he said, "competitive railway building developed pressure methods for obtaining new fran-Such methods must not have a place in the development of our airways.

Mr. Howe went on to cite as a precedent for the divorce between rail and air transport which he has decreed an allegation that the "principle" is "apparently well established" in the United States that no surface carrier may operate an airline [but which, as a matter of fact, is merely the current ruling of the Civil Aeronautics Board, not a government policy as expressed by law]. He wants small-time airline operations restricted to "small business enterprise"—to create a field of activity for returning Royal Canadian Air Force personnel, not as salaried employees but as owners of their

own operations.

Upon these arguments, the decree issues that the C. P. R. must sell out its air transport business, while the government promises to divorce the C. N. R. and Trans-Canada Airlines. Acknowledging the service that the C. N. R. has rendered in developing this government airline, Mr. Howe does not believe that this compensates for "the disadvantage of introducing into air transport the competitive methods of the railways."

Says I. C. C. Requires Barter on Transit at Enid, Okla.

With Commissioner Johnson complaining in a dissenting opinion that the majority report requires "the establishment of a barter system under which the shipper may exchange transit privileges for unabsorbed switching charges," the Interstate Commerce Commission in a seven-to-three decision has ruled that cross-town switching of grain at Enid, Okla., must be counted as one of the three transit stops permitted without additional charge under the line-haul rates on the grain shipments involved. The report on reconsideration in No. 28823 reverses the prior report by Division 3 which was noted in the *Railway Age* of August 28, 1943, page 356.

Jeffers Addresses Chicago Railroaders

At a time when all other agencies of transportation are receiving governmental subsidies, the railroads have reversed the process and are subsidizing the government, by means of land-grant rate reductions. W. M. Jeffers, president of the Union Pacific, declared on March 20 in an address to the Western Railway Club. His further noteworthy disclosures on the threat of these rates to postwar railroad liquidity and even solvency are summarized elsewhere in this issue, in the report of his testimony at the Congressional hearing on a proposal that these rates be repealed.

In response to a question about synthetic rubber at the Western Railway Club meeting, Mr. Jeffers said that plants in this country are now producing 50,000 to 60,000 long tons a month and, by next summer, the production is expected to be at the rate of 800,000 long tons a year. He stated that synthetic rubber may not be as good as crude in some respects at present, but is better in other respects and can be further improved to meet all essential requirements. He strongly urged the retention of the synthetic rubber plants in this country after the war as a check on the prices charged for crude rubber received from foreign sources.

The grain involved is that which moves into Enid for storage and is subsequently given a terminal movement to an Enid mill before being moved out of that point. The railroads had been making a charge for such a movement on the theory that "true transit is applicable in connection with line-haul rate only and does not apply to movements across town within the same terminal." In rejecting this contention and ordering that the movement be counted as one of the allowable transit stops, the majority stated that such arrangements are in effect at many other points.

An Unequal Trade — As Dissenter Johnson read the majority report, it concedes that the railroads are not obligated to perform cross-town switching free of charge; and, if the shippers are unwilling to surrender a line-haul transit, the railroads "are required to collect the full amount of the switching charges (in money)." Mr. Johnson would not object too much if the transit privilege had any value, but the shippers "have more transit privileges than they can use and they part with nothing having value when they forego having the use of one of them."

Also, Mr. Johnson said the decision was inconsistent "with the reforms in terminal switching contemplated in our continuing investigation in Ex Parte 104, Part II, Terminal Services," from which he cited the so-called Staley decision involving switching allowances at the Decatur, Ill., plant of the A. E. Staley Manufacturing Company. Furthermore, he objects to any-

thing which encourages cross-town switching by rail, because a "properly co-ordinated system of transportation would (as far as practicable) limit cross-town shipments between points within terminals to the motor carriers." This, he added, is particularly important at the present time when the railroads "do not have enough equipment adequately to meet the needs of the unprecedented volume of traffic that is now being proffered for line-haul movement."

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The other dissenters were Commissioners Miller and Rogers. Commissioner Porter wrote a concurring expression to argue, contrary to Mr. Johnson's point of view, that the present case "has not the remotest relation" to the Staley decision or the terminal services proceeding in general. Chairman Patterson concurred in Mr. Porter's views.

Testimony Ended in Government-Northern Pacific Suit

Testimony was ended at St. Paul, Minn., on March 17 in the government- Northern Pacific suits in which the railroad, in one suit, seeks \$3,800,000 for transportation charges and the government, in a counter suit, asks \$5,500,000 overcharges. The case originated with a suit for \$600 by the railroad for hauling materials to Grand Coulee Dam in March, 1943. Later the road raised the amount to \$3,800,000 and the government countered with its suit.

Upon completion of testimony, the Federal District Court gave the government three months and the railroad two months in which to prepare statements and file briefs. When this is done, the court will

take the case under advisement.

At hearings held at Spokane, Wash., Grand Coulee, Seattle, Denver, Colo., Portland, Ore., Washington, D. C. and St. Paul, the government introduced 5,555 exhibits and 80 witnesses and the railroad 110 exhibits and 20 witnesses. One government exhibit contained more than 17,000 items and in its preparation, a staff of eight persons worked nearly 6 months.

February Operating Revenues 9.3 Per Cent Above 1943

From preliminary reports of Class I railroads representing 81.5 per cent of total operating revenues, the Association of American Railroads has estimated that operating revenues in February were \$591,-357,763, compared with \$540,883,211 in February, 1943, an increase of 9.3 per cent. Estimated February freight revenues were \$444,839,629, compared with \$419,200,180, an increase of 6.1 per cent. Estimated passenger revenue was \$108,266,356, compared with \$85,542,352, a rise of 26.6 per cent.

Equipment on Order

Class I railroads on March 1, had 33,012 new freight cars on order, according to the Association of American Railroads. On the same date last year, they had 19,329 on order.

This year's March 1 total included 11,183 hopper, 4,380 gondolas, 1,000 flat, 11,856 plain box cars, 3,225 automobile box cars, 1,168 refrigerator, and 200 stock freight cars.

The Class I roads also had 779 locomotives on order on March 1, compared with 499 on the same day in 1943. The former

figure included 264 steam and two electric and 513 Diesel-electric locomotives, contrasted with 352 steam and 147 electric and Diesel-electric one year ago.

Class I roads put 5,174 new freight cars in service in the first two months this year compared with 2,996 in the same period last year. Those installed in this year's first two months included 2,740 hopper, 474 gondola, 515 flat, 283 automobile box, 1,130 plain box, and 32 refrigerator freight cars.

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They also put 180 locomotives in service in January and February, of which 75 were steam and one electric and 104 Diesel-electric. Locomotives installed in the first two months of 1943 totaled 99, of which 83 were steam and 16 were electric and Diesel-electric

The Office of Defense Transportation reported that railroads, other than Class I, had 51 new locomotives on order on March 1, and that three new locomotives were installed in service in February. None was installed in January. This brings to 830 the total number of locomotives on order on March 1. The number installed by all railroads in the first two months this year totaled 183.

Postwar Passenger Transport Seen Rising

The greatest expansion in personal travel ever experienced in transportation history has occurred since 1920 and will continue in the postwar era, according to a book entitled Passenger Transport in the United States-1920-1950-just published by the Railway Business Association. In postwar years, the book states, expansion in traffic due to war emergencies will gradually be cancelled out, and the remaining traffic in each successive year will be the normal civilian movement, plus that gradually decreasing part of the war traffic which will represent, for an indefinite period, a greatly larger military movement than existed in prewar years.

Population increase and changes in national income will continue to be basic factors in controlling the volume of traffic, but management policies, the early adoption of technological improvements, and the extent of subsidization, will become highly important factors in controlling redistribution of traffic between the carriers, the book states.

Management Can Turn the Trick-Preferences of the people are a factor that must be met, and while no such revolutionary change as occurred in the 'Twenties may be expected in this decade, managerial policies will be highly important if there is to be drawn, from the vast pool of private automobile traffic, added patronage to the common carrier services. It should be recognized that the desire to travel has become deeply imbedded in our national habits, and after a long period of war, imposing difficulties in the indulgence of this habit, there will exist a large opportunity to increase the volume of common carrier travel if managerial enterprise sets itself to meet the requirements of the public.

The book provides a complete statistical record of passenger transport by rail from 1920 through 1943, and for buses and airlines from 1934 to 1943, and shows what the effect would be of applying the normal

trend (1934-1940) through the war years and to the end of the present decade.

Based upon the trend from 1934 to 1940, the book estimates that railway passenger traffic will increase to 326,000,000 passengers and 29,673,000,000 passenger-miles in 1949, compared with 260,000,000 and 23,073,000 respectively in 1943.

Freight Car Loading

Loadings of revenue freight for the week ended March 18 totaled 786,442 cars, the Association of American Railroads announced on March 23. This was an increase of 4,909 cars, or .6 per cent above the preceding week, and an increase of 18,308 cars, or 2.4 per cent above the corresponding week last year, but a decrease of 10,212 cars, or 1.3 per cent below the comparable 1942 week.

Loading of revenue freight for the week ended March II totaled 781,533 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

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For the Week District	Ended Sat	urday, Mar	ch 11 1942
Allegheny Pocahontas Southern Northwestern Central Western. Southwestern	155,820 173,814 54,651 125,671 81,279 119,946 70,352	154,051 168,044 58,383 124,350 80,888 114,505 68,824	166,739 176,003 53,381 130,419 92,222 117,156 63,436
Total Western Districts	271,577	264,217	272,814
Total All Roads	781,533	769,045	799,356
Commodities Grain and grain products Live stock Coal Coke Forest products Ore Merchandise l.c.l. Miscellaneous	45,556 14,257 172,476 14,915 43,937 13,241 104,138 373,013	48,599 12,504 178,481 14,821 42,308 14,812 96,630 360,890	38,233 10,868 155,616 13,751 47,486 12,710 146,821 373,871
March 11 March 4 February 26 February 19 February 12	781,533 788,255 782,463 775,692 795,262	769,045 748,926 782,921 752,019 765,271	799,356 770,485 781,859 774,420 782,701
Cumulative Total,			

In Canada.—Carloadings for the week ended March 11 totaled 69,201, compared with 69,207 for the previous week and 8,111 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

11 Weeks.... 8,525,757 8,105,507 8,551,262

Total for Canada:	Total Cars Loaded	Total Cars Rec'd from Connections
Mar. 11, 1944	69,201	40,564
Mar. 4, 1944	69,207	42,517
Feb. 26, 1944	68,330	41,530
Mar. 13, 1943	61,090	38,072
Cumulative Totals for Cana	da:	
Mar. 11, 1944	676,801	392,108
Mar. 13, 1943	598,708	371,854
Mar. 14, 1942	620,807	320,608

Southern Governors Answer No. 28310 Exceptions

In a reply to various exceptions to the examiners' proposed report in the No. 28310 proceedings of the Interstate Commerce Commission dealing with the question of a consolidated freight classification, the Southern Governors' Conference has come to the support of the examiners' views.

Criticisms of the examiners' suggestions were filed with the commission by railroads, shippers' organizations, governors and regulatory officers of various states, and

others, as reported in Railway Age of February 19 and 26, pages 400 and 431, respectively. The southern governors' reply to these criticisms terms them erroneous in so far as they contend that the examiners' report presented a rigid formula for a uniform classification, and goes on to assert that the commission should make a finding of unreasonableness under section 1 of the Interstate Commerce Act with respect to the existing classifications.

The examiners, said the southern governors, could and should find, on the record, that the present ratings are unjust, unfair and unreasonable. Their proposal that classification uniformity could be brought about under section 3 of the act this group held fully supported by law and evidence, thus disputing a contention embraced by many of the exceptions. The southern governors insisted that the proposed report constitutes a sufficient basis for a commission order requiring the carriers to submit a uniform classification. Such a classification may be prescribed, they said further, without contemporaneous consideration of class rates. While the contention that exceptions to the classification were not in issue in the proceeding was not disputed, this reply countered with the view that the existence of such exceptions was a fact that had to be considered.

C. P. R. Dining Car Employees Denied Higher Wage

An application by the Brotherhood of Railroad Trainmen in behalf of about 1,000 dining car employees of the Canadian Pacific for an increase in wages has been refused by the Dominion War Labor Board, but the application for changes in overtime conditions was largely granted. Disposing of the application for wage increases, the Board said in a statement issued at Ottawa last week: "We are of opinion that no case was made out by comparison with wages paid either in railway operation or hotel operation to justify granting the increases asked."

Then, dealing with the request of the C. P. R. dining car employees for time-and-half after 208 hours, the Board at the outset admitted that on account of unusually heavy traffic conditions prevailing at this time some of the car crews are definitely overworked.

"It seems to have been taken for granted that, for the purpose of estimating overtime on an hourly basis, 240 hours has been taken as the month's work. All these employees are paid by the month. We feel that we cannot fairly initiate a rule which will result in a general increase in the dining car service in order to rectify a condition of temporary hardship which accrues to some of the employees. Nevertheless we feel also that some compensation must be found for those who are obliged to give up some or a large part of the normal period of rest.

"Accordingly, on those assignments in which the time in transit exceeds 24 hours, if an employee is not relieved from duty for at least 9 hours between the serving of dinner and breakfast, any time between the actual time of release from duty and 9 hours shall be paid for as overtime at the rate of time and one-half on the minute basis to the nearest 15 minutes. For the

purpose of calculating overtime rate the working month is to be considered one of 240 hours."

A similar application for wage increases and adjustment of overtime conditions has been made by dining car and sleeping car operators on the Canadian National Railways but no decision has yet been announced.

Employee Protection Provisions Defined by I. C. C.

In orders issued by the Interstate Commerce Commission with respect to work affecting railway lines as required by section 5(2) of the Interstate Commerce Act, any provisions included for the protection of employees who may be adversely affected are limited to a maximum period of four years from the effective date of the order authorizing the transaction, the full commission has held upon further consideration of its Finance Docket No. 13085 proceedings.

The question was raised by the Railway Labor Executives' Association, and involved interpretation of section 5(2)(f) of the act, directing the commission to provide that "during the period of four years from the effective date of such order" the transaction will not result in affected employees "being in a worse position with respect to their employment." The particular proceeding dealt with an order authorizing certain construction and abandonments of lines, trackage rights agreements and joint ownership arrangements in which the Chicago, Rock Island & Pacific, the Chicago, Milwaukee, St. Paul & Pacific and the Kansas City Southern participated in the development of a new entrance into Kansas City, Mo., for the two roads first named.

Projects Completion Delayed-The projects were authorized by a Division 4 order dated January 14, 1942, and effective 40 days thereafter, and subsequently modified to become effective April 26, 1942. The construction thus authorized was required to be completed by the end of 1943, but on November 19, 1943, the division, upon petition of the roads concerned, extended the time for completion to December 31, 1944. Authority to proceed with the work was conditional upon the protection of employees adversely affected "for a protective period extending from the date on which the employee was affected to the expiration of 4 years from the effective date of the order, with a proviso as to any employee who had worked . . . less than 4 years prior to the date he was affected."

After the extension of the date for completion of the project had been approved, the union leaders asked that an extension in the employees' protective clause likewise be ordered. They contended that the 4-year period mentioned in section 5(2)(f) of the statute represented "the minimum period of protection" the commission could consider to be "fair and equitable," and pointed out that the commission had never indicated its judgment whether the statute limits the protective period to 4 years from the effective date of the order.

The unions' petition further suggested that the provision in the division's order concerning the protection of employees be amended either to establish a protective period running 4 years from the date the employee is affected or to have the protective period run for 4 years from the date of the last order in the proceeding, that is, November 19, 1943. The commission found, however, that the order authorizing the transaction was that which was effective

April 26, 1942, and "the order extending the time for completion of construction does not change the effective date of the order authorizing the transaction." It found, also, that the statute prescribes a "definite period of protection," that is, 4 years, and that the commission has no authority to prescribe any other period in a case covered by section 5(2) of the act.

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I. C. C. Operating Revenue and **Expense Report Amplified**

The regular monthly comparative tabulation of operating revenues and operating expenses of Class I roads has been released by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission in a slightly modified form in its first 1944 appearance. While it sets forth all the information included in this statement previously, the January summary, compiled from 132 monthly reports representing 135 Class I roads, gives separately the figures for some elements in the maintenance expense totals that were not formerly stated, and is rearranged to bring together all the items included in the maintenance categories.

As detailed in the accompanying table, maintenance of way and structures expenses are now broken down into the following items: depreciation, retirements, deferred maintenance, amortization of defense projects, equalization, and "all other," the last item representing to a substantial extent the actual cash outlay, while the others make up largely what the bureau has termed "non-cash" items. A similar arrangement characterizes the maintenance of equipment summary, in which these similar items are now separately stated: depreciation, extraordinary retirements, deferred maintenance and major repairs, amortiza-

Operating Revenues and Expenses of Class I Steam Railways

	operating I	ecvenues an	u Lapenses	OI CIUSS I				
	United	States	Eastern D	Pistrict	Southern	District	Western	District
Item	1944	1943	1944	1943	1944	1943	1944	1943
Miles of road operated at close of	***	222 224	*****		42 200	42 405	120 202	120 474
month	228,796	229,385	56,126	56,416	43,388	43,495	129,282	129,474
Revenues:	## 40 410 000	AE14 200 E77	0010 704 276	\$201,115,932	\$108,629,176	\$106,930,807	\$227,065,257	\$206,261,838
Freight	\$548,418,809	\$514,308,577	\$212,724,376 54,911,015	46,065,263	28,889,911	23,171,431	56,313,860	42,487,230
Passenger	140,114,786	111,723,924	3,412,847	3,396,334	1,901,454	1,740,943	5,014,167	4,523,958
Mail	10,328,468	9,661,235		3,273,229	2,148,293	1,553,873	6,444,293	4,129,213
Express	13,248,933	8,956,314 26,672,787	4,656,347 12,670,814	12,032,848	4,119,587	3,545,023	11,770,334	11,094,916
All other operating revenues	28,560,735			265,883,606	145,688,421	136,942,077	306,607,911	268,497,154
Railway operating revenues	740,671,731	671,322,837	288,375,399	403,003,000	143,000,441	130,942,077	300,007,711	200,477,134
Expenses:	89,503,248	73,030,459	34,761,319	29,278,120	16,048,475	13,936,714	38,693,454	29,815,625
Maintenance of way and structures			3,807,207	3,811,929	1,459,628	1,481,437	3.545.540	3,591,399
Depreciation	8,812,375	8,884,765		25,753	81,914	151	185,119	*19,573
Retirements	448,167 264,097	6,331 29,499	181,134 1,204	23,733	01,714	131	*265,301	29,499
Deferred maintenance			435,215	179,490	233,818	113,058	626,274	319,859
Amortization of defense projects	1,295,307	612,407		3,010,605	1,136,537	1,791,450	1,776,058	1,608,859
Equalization	6,455,122	6,410,914	3,542,527		13,136,578	10,550,618	32,825,764	24,285,582
All other	72,756,374	57,086,543	26,794,032	22,250,343	23,686,255	20,416,065	50,854,033	40,482,264
Maintenance of equipment	129,179,685	107,730,556	54,639,397	46,832,227			6,654,944	6,648,886
Depreciation	17,760,917	17,566,299	7,481,736	7,370,811	3,624,237	3,546,602		, , ,
Extraordinary retirements		*****		*****		*****		*****
Deferred maintenance and major	40.040	#42.000				*4.810	19,343	*38,390
repairs	19,343	*43,200	2 064 960	2 220 002	2,905,722	2,382,602	4,894,258	3,057,876
Amortization of defense projects	11,764,840	8,769,481	3,964,860	3,329,003 11,548	*17,229	9,205	21,568	45,003
Equalization	17,142	65,756	12,803		17,173,525	14,482,466	39,263,920	30,768,889
All other	99,617,443	81,372,220	43,179,998	36,120,865		1,905,112	4,969,596	4,535,226
Traffic	11,066,910	10,184,159	4,012,985	3,743,821	2,084,329	36,080,411	94,083,013	79,071,027
Transportation—Rail line	248,250,067	210,647,646	111,953,330	95,496,208	42,213,724	30,000,411	275	1,662
Transportation—Water line	275	1,662	2 444 000	2 000 640	1,515,113	1,374,601	4,570,736	3,876,595
Miscellaneous operations	9,530,657	8,259,844	3,444,808	3,008,648				5,672,937
General	16,482,231	14,324,103	6,656,564	5,917,908	3,200,509	2,733,258 76,446,161	6,625,158 199,796,265	163,455,336
Railway operating expenses	504,013,073	424,178,429	215,468,403	184,276,932	88,748,405		106,811,646	105,041,818
Net revenue from railway operations	236,658,658	247,144,408	72,906,996	81,606,674	56,940,016	60,495,916		51,249,674
Railway tax accruals	138,969,465	127,226,724	39,213,236	41,125,857	35,633,032	34,851,193	64,123,197 7,464,582	6,205,331
Pay-roll taxes	18,734,604	15,855,461	8,041,522	6,825,616	3,228,500	2,824,514	47,526,600	36,774,730
Federal income taxes	95,766,725	87,929,651	20,969,017	24,233,786	27,271,108	26,921,135		8,269,613
All other taxes	24,468,136	23,441,612	10,202,697	10,066,455	5,133,424	5,105,544	9,132,015	53,792,144
Railway operating income	97,689,193	119,917,684	33,693,760	40,480,817	21,306,984	25,644,723	42,688,449	6,040,939
Equipment rents-Dr. balance	11,377,020	11,379,263	5,103,599	4,403,508	676,336	934,816	5,597,085	
Joint facility rent-Dr. balance	3,488,258	3,449,278	1,751,935	1,798,395	411,235	417,619	1,325,088	1,233,264
Net railway operating income	82,823,915	105,089,143	26,838,226	34,278,914	20,219,413	24,292,288	35,766,276	46,517,941
Ratio of expenses to revenues (per	40.0	44.0	242	(0.2	60.0	55.0	65.0	60.9
cent)	68.0	63.2	74.7	69.3	60.9	55.8	65.2	00.9
Without and the control of the contr						,		

^{*} Decrease, deficit, or other reverse items.
† Includes income tax, surtax, and excess-profits tax.
Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision. Switching and terminal companies not included.

tion of defense projects, equalization, and 'all other.'

Retirements, equalization, and "all other" items have not been separately stated in previous monthly tabulations. As used in this statement, the equalization figure represents the difference between budgeted and actual maintenance expenses, as was explained in the latest issue of the bureau's Monthly Comment.

February Ton-Miles 10.5 Per Cent Over 1943 Record

The volume of freight traffic, measured in ton-miles of revenue freight, handled by the Class I railroads in February, was again greater than in any corresponding month on record, according to the Association of American Railroads. It amounted to approximately 60,000,000,000 ton-miles, according to preliminary estimates. This was an increase of 10.5 per cent compared with the same month in 1943, 47 per cent over February, 1942, and an increase of 160 per cent compared with February 1939.

The accompanying table summarizes actual ton-miles statistics for the year 1943, and preliminary figures for the first two months of 1944:

December	1943 60,614,577,000	1942 55,036,940,000	Per cent Increase 10.1
Year	727,047,608,000	638,075,933,000	13.9
	1944	1943	
January February	\$60,800,000,000 \$60,000,000,000	55,120,899,000 54,419,933,000	10.3 10.3

1 Revised estimate. ³ Preliminary estimate.

Trans-Mo. Board Would Defer All Key Transport Men

Deferment of all key men in all forms of transportation was demanded in a resolution passed by the Trans-Missouri-Kansas Shippers Board at its annual meeting at St. Louis, Mo., on March 22. The action was taken because of the serious condition prevailing on railroads and truck lines resulting from the drafting of trained and experienced men that cannot be replaced over-

Report of committees indicated that transportation conditions in the Board's territory were favorable and will continue to be satisfactory in view of 5.3 per cent decrease n anticipated carloadings for the second quarter, provided labor shortages do not become acute. Present officers were reelected.

At a luncheon session William M. Jeffers, president, Union Pacific, advocated the repeal of land grant rates. He also made an appeal that industry now make plans for the employment of the 10,000,000 men who will be released from military service after the war, in order to preclude the possibility of unrest that might result from unem-ployment. In discussing general transporation conditions, L. M. Betts, manager of the Railroad Relations Section, Car Service Division, Association of American Railtoads, emphasized the personnel problem of the railroads by stating that a continuance of adequate rail transportation in 1944 depends not so much on more cars and locomotives, but more on the maintenance of efficient and trained railroad personnel. Already, he said, the shortage of manpower as adversely affected the handling of rail traffic to a serious degree and, in spite of

all possible efforts, the railroads have not been able to recruit replacements equal in number to those leaving their service. Those obtained have been inferior in knowledge and experience to those lost. Car shortages during the last eight months, he said, have been due to a shortage of switchmen, trainmen, enginemen, mechanics and repairmen.

He stated that aside from the manpower problem, the general railroads situation looks much brighter than a year ago and that if the necessary employees can be retained the railroads will maintain their record of performance. Committee reports indicated that in the territory of the Board the peak of traffic volume will be reached about July.

Representation of Employees

As the result of an election, the Railroad Yardmasters of America has lost to the Railroad Yardmasters of North America, 32 to 6, the right to represent the yardmasters of the Indiana Harbor Belt for the purposes of the Railway Labor Act, as certified by the National Mediation Board. On the Kansas City Terminal, the Rail-road Yardmasters of America retained by a vote of 8 to 6 the right to represent that road's yardmasters, which had been challenged by the Brotherhood of Railroad Trainmen.

The board has designated the Brotherhood of Railway Clerks, to represent the clerical, office, station and storehouse employees of the Lake Superior & Ishpeming, not previously represented. The board disclosed also that requests for its services in connection with the certification of representatives of employees had been withdrawn before its action was concluded in the cases of the Lehigh Valley's mechanical department foremen and supervisors below the rank of general foremen and the Chicago River & Indiana's yardmasters. The unions active in the respective cases were the Railway Employees' Department of the American Federation of Labor and the Railroad Yardmasters of America.

A. W. Vogtle Is Promoted

Alvin W. Vogtle, heretofore manager of traffic and sales of the De Bardeleben Coal Corporation, Birmingham, Ala.—a former president of the National Association of Shippers' Advisory Boards and an active writer and publicist on traffic and transportation subjects-has been elected a vicepresident of his company, with his juris-diction extended to include marine transportation, in addition to his former responsibilities.

Requires Use of Air Brakes in Yard Limit Movements

Main track movement of cars hauled by locomotives within yard limits is subject to the requirements of the Safety Appliance Law and to the June 6, 1910, order of the Interstate Commerce Commission setting forth the conditions constituting compliance with the requirements for power-brake operations, in which it is provided that such trains must have their brakes "used and operated" by the engineer of the locomotive, the commission has pointed out in a report of a train accident investigated under the direction of Chairman Patterson.

The report dealt with a head-end collision on the Virginian at Roanoke, Va., at 3:08 p.m. on February 13. It involved an eastbound extra freight, consisting of 81 cars and caboose, which was drawn by an electric locomotive, and a train made up of a steam switch engine pushing two cars and pulling four cars west on the main line within yard limits. The collision occurred on an 8 deg. 10 min. curve, where visibility was limited to about 300 ft. One employee was killed and two were injured.

The commission found that the accident was caused by failure to control the speed of both trains within yard limits as required by rule. The authorized speed in such circumstances was prescribed as that which would permit a train to stop within onehalf the range of vision, it explained, yet each train was in motion when the accident occurred, the speed of the switching train being estimated at 8 m.p.h. and that of the

extra freight at 10 m.p.h.

The report went on to point out, however, that the air brakes of the six cars coupled to the switch engine were not in use, that the road had issued no instruction requiring the use of air brakes in movements of this character, and that it had been the practice for such movements to be made without the use of air brakes on the cars. If the air brakes of these cars had been in use, the train could have been stopped before the collision took place, the report concluded.

Coordinated Mechanical Meeting

At a conference of officers of the Coordinated Mechanical Associations at Chicago on March 20, it was decided to hold the next annual meeting of these Associations on September 26, 27 and 28 at the Hotel Sherman, Chicago. The Associations involved include the Railway Fuel & Traveling Engineers' Association, the Master Boiler Makers' Association, the Car Department Officers' Association and the Locomotive Maintenance Officers' Associa-

At the joint opening meeting on the morning of September 26, a prominent railway officer will deliver the principal address after which the Associations will adjourn to individual meeting rooms for the presentation of their respective programs. Full member meetings are scheduled but without exhibits or entertainment.

Air Transport of Perishables Appeals to Wickard

Admitting that there are "some problems yet to be explored" and "several unknown factors in the practical application of this project," Secretary of Agriculture Claude R. Wickard on March 23 gave a group meeting in Detroit, Mich., to survey postwar air cargo transport prospects an optimistic picture of the chances of developing "a new and improved method of moving certain perishable farm products" from producer to consumer.

The meeting was sponsored by Wayne University and the Detroit Board of Commerce, and Secretary Wickard's remarks were broadcast over the Blue Network. Two studies recently published by Wayne University, "Air Cargo Potential in Fresh

Fruits and Vegetables," and "Post-war Possibilities of Air Transportation of Fresh Strawberries and Tomatoes," ied the speaker to comment upon the possibilities of using air cargo planes for the movement of such perishables from Florida to Detroit as an example of the potential applications of this service.

Certain fruits and vegetables demand high speed transport or special care in handling, he pointed out. "If the airplane can get the produce to the consumer in a more palatable and nutritious form, the consumer will gain by getting a better product and the producer stands to gain by obtaining a larger income because of the greater demand for his product.

Lower Packing Costs-"One of the chief factors upon which the success of such a venture on a commercial scale depends is, of course, the comparative costs of air cargo transportation and surface methods of shipment," Mr. Wickard went on to say. The Wayne University investigations developed, he continued, that a cargo plane moving 41/4 tons of perishables from Florida to Detroit could operate on charges 6 cents per quart higher for strawberries, or 6 cents per pound higher for tomatoes, than the "fastest surface methods of transport." To offset the added transportation costs, he said, several handlings necessary with the present packing and ripening methods could be avoided, lighter containers could be used, and spoilage and waste would be reduced, with the result that "there is reason to believe that tomatoes can be placed on retail counters in the winter season at practically the same price as those transported by surface carriers."

The Secretary went on to picture the possibility that produce might be harvested in the morning of one day, pre-cooled in the afternoon, loaded on a plane in the evening, transported overnight to northern consuming centers, and arrive in the retail store less than a day after being harvested. He referred to the added attractiveness of vine-ripened or tree-ripened produce that could be marketed in this way, remarking that airline time from Florida to Detroit is 7 or 8 hrs., which he compared to 3 days for rail express movement of strawberries, for example, or 4 days for their movement by rail or truck.

O. D. T. Appointment

The Office of Defense Transportation has announced the promotion of Paul B. Christian to chief of the rail traffic flow unit, traffic channels section, in the Division of Traffic Movement, succeeding J. D. Loftis, who has resigned to become associated with the Baldwin Locomotive Works. Before April, 1942, when he joined the O. D. T. staff, Mr. Christian was with the Railroad Retirement Board, prior to which he had been employed by the Southern in various capacities.

Ohio Valley Board Meeting

The Ohio Valley Transportation Advisory Board will hold its seventy-second regular meeting in the Deshler-Wallick Hotel in Columbus, Ohio, on March 28. Col.

J. Monroe Johnson, Interstate Commerce Commissioner, will speak at the morning session, while John B. Keeler, president of the National Industrial Traffic League, will be the principal speaker at the luncheon arranged jointly by the Columbus Chamber of Commerce and the Columbus Transportation Club.

Ends Joint Information Offices

Formal notice to suspend operations at midnight March 26 has been sent to the industry-operated joint information offices set up to aid over-the-road truckers to meet loading requirements under Office of Defense Transportation regulations, that agency announced this week. As reported in *Railway Age* of March 18, page 574, a new plan for registration with O. D. T. district offices has been put into effect, so doing away with the joint information offices.

Would Revamp Air Transport Regulatory Set-Up

Senator McCarran, Democrat of Nevada, has introduced S.1790 which would provide a new regulatory set-up for air transportation, establishing an independent seven-member Civil Aeronautics Authority to replace Civil Aeronautics Administration and the Civil Aeronautics Board, now within the Department of Commerce.

For the purpose of developing international air transportation under American auspices, the bill would create a federally-chartered private air line "with potential working capital in excess of \$1,000,000,000" to be known as the "All-American Flag Line." This international line, owned by domestic air carriers, would be confined to the international field, being prohibited from operating in interstate air transportation within this country.

February Employment 5.33 Per Cent Above February, 1943

Railroad employment increased another 1.85 per cent—from 1,358,778 to 1,383,917—during the one-month period from mid-January to mid-February, and the February total was 5.33 per cent above the comparable 1943 figure, according to the latest summary of preliminary reports prepared by the Interstate Commerce Commission's Bureau of Transport Economics and Statistics. The index number, based on the 1935-1939 average as 100 and adjusted for seasonal variation, was 139 for February as compared with 138.4 for January and 132 for February, 1943.

February employment was above January's in all groups save that embracing transportation employees, other than train, engine and yard, which was down four hundredths of one per cent. The increases above the previous month ranged from 0.46 per cent for yardmasters, switch-tenders and hostlers to 5.23 per cent for the maintenance of way and structures group.

Meanwhile, all groups were above the previous year, the range being from the 1.84 per cent increase in train and engine service employees to 6.56 per cent for transportation employees other than train, engine and yard.

Equipment and Supplies

Northern Pacific to Spend \$20,500,000

The Northern Pacific's program of equipment purchases and additions and betterments to railroad property calls for expenditures of \$20,500,000, according to C. E. Denney, president. "This program not only will enable us to better handle the increased traffic resulting from the increased tempo of military operations in the Pacific areas," he said, "but it is part of our continuing job of building up the property for improved service to shippers and travelers in the postwar period."

The more important 1944 projects include the laying of 40,000 tons of rails, \$3,250,000; the application of 1,000,000 yards of rock ballast, \$2,500,000; the construction of Diesel road locomotive shops at Auburn, Wash., \$500,000; an addition to the locomotive shops at Livingston, Mont. (started last fall), \$1,500,000; the construction of a 3,000-ft. tunnel through Bozeman Mountain, Mont., \$1,250,000; and line changes, \$750,000.

Equipment scheduled for delivery this year consists of nine 5,400 hp. Diesel-electric road locomotives, one of which went into service in February; nine Diesel-electric switching locomotives, four of which have been delivered; eight mallet type steam locomotives; and 1,000 box cars.

LOCOMOTIVES

The New York, New Haven & Hartford has ordered 42 new Diesel-electric locomotives, including 20 2,000-hp. road locomotives and 12 1,000-hp. switching locomotives from the American Locomotive Company, and 10 44-ton switching locomotives from the General Electric Company.

The Western Maryland is in the market for five steam locomotives of 4-8-4 wheel arrangement and inquiries have been sent to the American Locomotive Company, Baldwin Locomotive Works, and the Lima Locomotive Company, with the request that they promptly submit quotations and detail specifications as applying to this equipment.

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FREIGHT CARS

The New York Central has authorized the construction of 2,000 new freight cars by its subsidiary, Despatch Shops, Inc., at Rochester, N. Y. Included are 1,000 44-ft. 55-ton box cars and 1,000 55-ton hopper cars.

The American Refrigerator Transit Company has received authority for the building of 100 40-ton refrigerator cars in the company's own shops. Bids are being received for materials. Deliveries are expected to be completed during the latter part of this year.

The CHICAGO & NORTH WESTERN has filled its inquiry for 2,000 box cars of 50 tons' capacity, allocating 500 cars each

Here's one good measure of LOCOMOTIVE PROGRESS!



A comparison of the locomotives of World Wars I and II gives a striking picture of the great improvement in the performance of the modern steam locomotive. From 1916 to 1942, the tractive effort of the average steam ocomotive on class I railroads rose from 33,188 to 51,811 pounds, an increase of 56%. This figure is still rising. The average tractive effort of the locomotives built by Lima in the year 1943 for domestic service was 62,850 pounds.

The capacity of the steam locomotive to adapt itself to the changing requirements of the

railroads, its great flexibility - both in performance and in its ability to use whatever fuel may be locally the most desirable, and its record of consistent high availability, all contribute to make it the favorite railroad motive power.

And further great advances - which we at Lima feel may confidently be expected upon the termination of present wartime restrictions - promise to continue the supremacy of the steam locomotive in the railroad field.

LIMA LOCOMOTIVE WORKS

LIMA INCORPORATED

LOCOMOTIVE WORKS INCORPORATED, LIMA, OHIO

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to the American Car & Foundry Co., the Pullman-Standard Car Manufacturing Company, the Mt. Vernon Car Manufacturing Company and the General American Transportation Corporation.

The Lehigh & New England has placed an order for 300 all-steel hopper cars of 50 tons' capacity with the Bethlehem Steel Company. Deliveries are scheduled for September and October of this year.

The CHILEAN STATE RAILWAYS are reported in the market for 250 50-metric-ton gondola cars and 980 30-metric-ton box cars, the inquiry for which was originally issued late last year. The railroad is reported also to be seeking new passenger-train cars.

Supply Trade

Harold P. Ackerman, a member of the valve department of the American Car & Foundry Co., has been appointed assistant manager of that department. Mr. Ackerman will be in charge of sales promotion in the eastern states and will be concerned with the development of new types of valves and other new products for manufacture in the postwar period. He began his career during



Harold P. Ackerman

school vacation periods in the engineering-drafting room of the Mesta Machine Company of Pittsburgh, Pa. Following service in the armed forces in 1918, he worked with the Arizona Highway Department from 1919 to 1923. He joined the Homestead Manufacturing Company as sales engineer in 1923 and continued with that organization until 1933, when he entered the valve department of the American Car & Foundry Co.

R. G. LeTourneau, Inc., Peoria, Ill., has formed its own sales distribution organization to replace distribution through Caterpillar Tractor Company dealers. Under the new set-up, E. R. Galvin continues as general sales manager, H. R. Conn as Eastern sales manager, Harry L. Vines as Western sales manager, and Paul Fulford as export sales manager. Howard L. Stilley, chief field engineer, has been promoted to Central sales manager

and has been succeeded by Robert D. Evans, assistant chief field engineer; John F. Johannsen, export general manager has also been made export assistant general sales manager. E. M. Ferguson, district representative at Los Angeles, Calif., has been promoted to assistant Western sales manager at Stockton.

Donald M. Crooks, formerly in charge of engineering of the Hayward Lumber & Investment Co., Los Angeles, Calif., has been appointed Midwest representative of the Douglas Fir Plywood Association with headquarters in Chicago, to succeed David S. Beteone who has been made Eastern representative at Washington, D. C.

James H. Shaffer, special representative for the Schaefer Equipment Company, has been named manager of sales of that



James H. Shaffer

company with headquarters at Pittsburgh, Pa. W. Tom Ashe, formerly eastern representative and office manager in New



W. Tom Ashe

York of the Chicago Railway Equipment Company, has joined the Schaefer Equipment Company as assistant sales and service manager with headquarters in New York.

Karl Schick, Chicago zone supervisor of the Air Conditioning Control division of the Minneapolis-Honeywell Regulator Company has been promoted to sales manager of the newly formed Railway Controls division, with headquarters at Minneapolis, Minn.

The Copperweld Steel Company has received a renewal of its Army-Navy "E" Award in recognition of its production record for the Signal Corps during the past six months.

The Locomotive Firebox Company has transferred its eastern office from New York to 12 South 12th Street, Philadelphia, Pa.

E. W. Potratz, assistant sales manager of the Harnischfeger Corporation, Milwaukee, Wis., has been appointed manager of the Hoist Sales division.

James W. Lees, formerly traffic manager of the Chilean Nirate Sales Corporation, has been appointed traffic manager of the Fruit Dispatch Company, and assistant traffic manager of the United Fruit Company, with headquarters in New York.

Samuel J. Walker, assistant to the president of the Chicago Railway Equipment Company, has been elected vice-president, with headquarters as before at Chicago.

OBITUARY

Arthur C. Drynan, general manager of the railroad department of the International Correspondence Schools, died March 10, in Scranton, Pa.

TRADE PUBLICATIONS

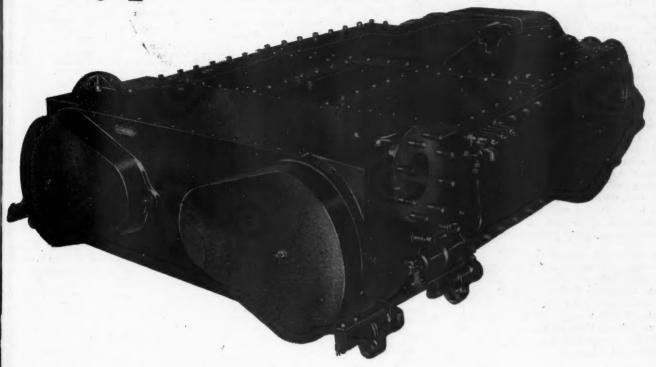
"Aluminum Imagineering Notebook."
—"Imagineering," as defined in this notebook issued by the Aluminum Company of America, Pittsburgh 19, Pa., "is the art of letting your imagination soar and then engineering it down to earth." As a stimulator of this mental process in the interest of postwar activities the notebook presents twelve economic advantages of aluminum, and illustrates numerous examples of things which have been imagineered into aluminum actualities. All of these examples are based on one or more of the advantages thumb-tabbed therein.

Construction

Norfolk & Western.—This company has been authorized by Division 4 of the Interstate Commerce Commission to build a 2.2-mile extension of its Buchanan branch along Upper Elk Creek to a point in Buchanan County, Va. Construction at a cost of about \$185,000 is to be commenced within 30 days and to be completed six months thereafter.

U. S. NAVY DEPARTMENT.—A contract for the survey and plans of the proposed \$12,000,000 Bremerton-Shelton (Wash.) railroad has been awarded to Shaw, Naess & Murphy, Chicago, for an undisclosed sum, by the Navy Department. Thirty engineers have arrived at Bremerton, Wash, to begin surveys under the direction of Captain E. B. Keating, U.S.N.

THE NEW Type "E" Booster*



is very economical in its use of steam

The short cut-off of the new Type "E" Booster takes full advantage of the expansive properties of the steam and effects marked economies in steam consumption.

The new Type "E" Booster has cast steel cylinders, with integral inlet and exhaust manifolds. The large steam and exhaust passages give maximum inlet pressures and minimum back pressures. A new design of ball joint with self adjusting packing and large passage areas insures the free flow of steam to and from the Booster.

For each Booster application the proper gear ratio is selected for a given boiler pressure, wheel diameter and adhesive weight to obtain maximum Booster power.

*Trade Mark Reg. U. S. Pat. Off.



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FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK . CHICAGO

In Canada: FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL

Financial

ATLANTIC & EAST CAROLINA.—Secured Note.—Division 4 of the Interstate Commerce Commission has authorized this road to issue to the First Citizens Bank & Trust Co. of Kinston, N. C., a \$50,000 serial 4 per cent note, secured by chattel mortgage, in order to replenish its working capital.

ALLEGHANY CORPORATION .- Sale of C. & O. Stock.-The Alleghany Corporation, on March 21, sold, through a syndicate of security dealers headed by Blyth & Co., the 704,121 shares of common stock of the Chesapeake & Ohio which was pledged under its \$14,801,519 bank loan. The proceeds from this sale are about \$32,000,000. This leaves Alleghany with 1,140,574 shares of C. & O. stock, or 14.9 per cent of the outstanding stock of that company, compared with 55 per cent held at one time by Alleghany and its affiliates. Since 1937, the structure of Alleghany has been simplified by the elimination of such holding companies as Midamerica Corporation, Chesapeake Corporation, Virginia Transportation Corporation and the U.S. Distributing Corporation and by the sale of substantially all holdings in the Chicago Great Western, the Chicago & Eastern Illinois and the Erie. During this period, the debt of Alleghany and its affiliates has been reduced approximately \$100,000,000.

Colorado & Southern.—Extension of Mortgage.—This company's subsidiary, the Wichita Valley, has applied to the Interstate Commerce Commission for authority to extend its obligation with respect to its matured first mortgage 5 per cent bonds from July 1, 1940, to July 1, 1955. The \$769,000 outstanding issue is held by the Colorado & Southern.

DETROIT & MACKINAC.—Annual Report.

—The 1943 annual report of this company shows a net deficit, after interest and other charges, of \$147,708, compared with a net income of \$234,470 in 1942. Selected items from the income statement follow:

from the income statem	ent ionov	V :
		Increase
	1943	Decrease Compared With 1942
RAILWAY OPERATING REVENUES	\$975,712	-\$213,767
Maintenance of way Maintenance of equipment Transportation—Rail Line	326,038 199,064 352,044	+154,703 +35,383 +6,855
TOTAL OPERATING EXPENSES Operating ratio	932,650 95,6	+204,335
NET REVENUES FROM OPERATIONS Railway tax accruals	43,062 80,803	-418,102 27,540
RAILWAY OPERATING INCOME—Dr. Equipment rents—Dr. Joint facility rents	37,741 20,070 1,070	-445,642 +46,037 +947
TOTAL INCOME-Dr.	51,984	-399,784
Rent for leased roads Interest on funded debt	92,840	-17,609
INCOME BALANCE TRANS- FERRED TO PROFIT AND LOSS-Dr.	147,708	-382,178

CHICAGO & NORTH WESTERN.—Promissory Notes.—Division 4 of the Interstate Commerce Commission has authorized this road to issue \$1,894,500 of promissory notes

in further evidence of the unpaid purchase price of 27 Diesel switching locomotives to be supplied by the American Locomotive Co. Twelve 660-hp. units will cost \$59, 750 each, and fifteen 1,000-hp. units will cost \$78,500 each. The purchase has been financed through the Continental Illinois National Bank & Trust Co. at an interest rate of 134 per cent per annum. the road has sufficient cash on hand to meet the cost of these locomotives, it prefers to conserve it in order to pay off indebtedness to the Reconstruction Finance Corp. and others, on which the interest rate is 4 or 4½ per cent, in connection with the consummation about June 1 of the approved plan of reorganization. At the same time, however, the road has purchased for cash from the same builder five additional locomotives at a cost of \$392,500.

ERIE.—Annual Report.—The 1942 yearly report of this company shows a net income, after interest and other charges of \$10,280,265, as compared with a net income of \$14,902,736 in 1942. Selected items from the income statement follow:

	1943	Or Decrease Compared With 1942
Average Mileage		
Operated RAILWAY OPERATING	2,243.8	+1.5
REVENUES .	\$157,893,223	+\$24,539,651
Maintenance of way Maintenance of equip-	15,369,513	+2,854,696
ment	27,141,405	+5,464,089
Transportation	54,173,426	+10,109,106
TOTAL OPERATING EXPENSES	104,127,772	+19,485,303
Operating ratio	* *****	
NET REVENUE FROM		
OPERATIONS	53,765,451	+5,054,348
Railway tax accruals	27,045,964	+7,540,493
RAILWAY OPERATING	06 710 407	2 406 145
INCOME Equipment rents—	26,719,487	-2,486,145
Net Dr. Joint facility rents—	7,142,871	+2,064,466
Net Cr.	231,075	-14,530
NET RAILWAY OPERATI		
INCOME	19,807,691	-4,565,141
Total other income	986,832	-13,239
TOTAL INCOME	20,794,522	-4,578,380
Rent for leased roads and equipment Interest on funded deb	362,218	-256,844
Fixed interest	5,608,548	-288,718
TOTAL FIXED CHARGES	6,125,483	-658,827
NET INCOME	10,280,265	-4,622,471
Disposition of net incom Income Applied to sink and other reserve fur	ring	
Sinking Funds Balance of Income Tra	563,212	+.10
terred to Earned		

ILLINOIS CENTRAL. — Modification of Leases.—This company and certain subsidiaries have applied to the Interstate Commerce Commission for approval of revised or modified leased-line agreements to meet depreciation accounting requirements now in effect. The agreements involve operation of the Chicago, Memphis & Gulf; Dubuque & Sioux City; Chicago, St. Louis & New Orleans; Southern Illinois & Kentucky; Baton Rouge, Hammond & Eastern; Benton Southern; Bloomington Southern; Blue Island; Fredonia & Reeds; Herrin Northern; Omaha Bridge & Terminal; St. Louis, Belleville & Southern; South Chicago; and Golconda Northern.

9.717.053 -4.622,471

Surplus

MINNEAPOLIS & ST. LOUIS.—Annual Report.—The 1943 annual report of this road shows a net income, after interest and other charges of \$3,168,531, as compared with a net income of \$2,799,289 in 1942. Selected items from the income statement follow:

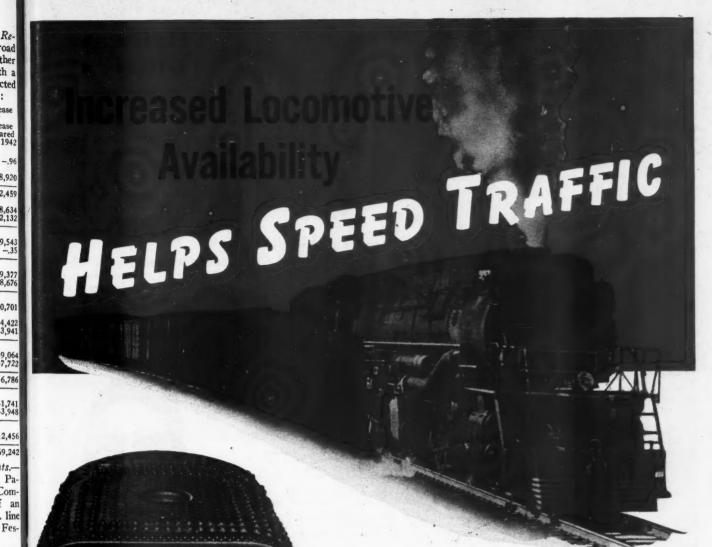
		Increase
		Decrease
		Compared
The state of the s	1943	With 1942
Average Mileage Operated RAILWAY OPERATING	1,408.45	96
REVENUES REVENUES	\$14,821,908	+\$1,268,920
Maintenance of way Maintenance of equip-	2,215,926	+242,459
ment	2,084,277	+188,634
Transportation	4,491,938	+332,132
TOTAL OPERATING		
Expenses	10,125,806	+819,543
Operating ratio	68.32	35
NET REVENUE FROM		
OPERATIONS	4,696,102	+449,377
Railway tax accruals	1,011,006	+298,676
RAILWAY OPERATING		
INCOME Hire of equipment—	3,685,096	+150,701
net dr.	197,132	-194,422
Joint facility rents	9,247	-3,941
NET RAILWAY OPERATI	NG	
INCOME	3,478,717	+349,064
Non-operating income	63,803	+7,722
GROSS INCOME	3,542,520	+356,786
Rent for leased roads		
and equipment	23,853	+1,741
Interest on funded debt	43,948	+43,948
Total Deductions Fro Gross Income	373,989	-12,456
NET INCOME	3,168,531	+369,242
MISSOURI-ILLINOIS	-Trackage	Rights.

MISSOURI-ILLINOIS.—Trackage Rights.— This road, controlled by the Missouri Pacific, has applied to the Interstate Commerce Commission for approval of an agreement for operation over a 3434-ft. line of the Pittsburgh Plate Glass Co. at Festus, Mo.

GULF, MOBILE & OHIO.—Leased Line Bonds.—With the explanation that "we do not regard the issue of fixed interest bearing securities by a carrier having a large corporate deficit as a sound practice, and any authority granted herein should not be considered as a precedent in such cases," a majority of Division 4 of the Interstate Commerce Commission has approved a report and order authorizing the New Orleans Great Northern to issue to the Gulf, Mobile & Ohio \$109,000 of first mortgage 5 per cent bonds, series B, to reimburse the latter company for advances made. Commissioner Porter dissented from the majority finding of Commissioners Mahaffie and Miller.

The issuing road had applied for authority to issue \$132,000 of the specified bonds to the G. M. & O., which road leases its property and holds 95 per cent of its capital stock. The majority found that the transaction which it approved would not increase the lessor's indebtedness, since unsecured advances had been made by the lessee for equivalent additions and betterments, but would give the lessee a security having priority over stock and debentures to which it was entitled, under the lease, with respect to expenditures for improvements.

The report pointed out that the issuing company has failed to meet its interest obligations to the extent of \$1,749,263, a liability that does not constitute default but which is cumulative and will become due



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Security Circulators (there are now 3548 of them in service and on order) are increasing locomotive availability. This is particularly valuable in these days when every locomotive hour is so sorely needed.

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at the maturity of the debentures on which it has accrued. Its only source of income is the contingent rental paid by the lessee, the amount of which is based upon the lessee's dividend distributions. Commissioner Porter objected to approval of the transaction under such conditions, asserting that "in this period of general railroad prosperity the rental payments have been insufficient to meet the applicant's interest needs to the amount of \$1,749,263. It is apparent that under the circumstances the applicant's income will never be sufficient to meet all or any part of its existing obligations at or before maturity."

To the majority's warning that approval of the issue should not be considered a precedent, the dissent said, "the majority nevertheless has authorized in this proceeding the issue of fixed interest-bearing securities by an applicant having a large corporate deficit and cannot in the future escape, by a mere statement of intentions. the consequences thereof. Moreover," said Commissioner Porter, "the authority granted is in direct contravention to our established policy of requiring carriers in periods of general railroad prosperity to reduce their outstanding obligations."

Southern Pacific. - Annual Report. -The 1943 annual report of this company shows a net income, after interest and other charges of \$58,359,821, compared with a net income of \$80,282,856 in 1942. Selected items from the income statement follow:

	1943		Increase or Decrease Compared With 1942
Average Mileage Oper RAILWAY OPERATING			- 211.3
REVENUES	\$597,367,419	+\$	124,618,604
Maintenance of way Maintenance of equip-	76,377,367	+	36,506,522
ment Transportation	90,684,992 166,806,676	++	22,701,034 29,809,115
Total Operating Expenses	\$369,209,561	+\$	96,586,887
NET REVENUE FROM. OPERATIONS	\$228,157,859	+\$	28,031,716
Railway tax accruals Equipment and Joint for cility rents—Net	a-	+	49,874,355
NET RAILWAY OPERA-	24,195,692	+	3,416,354
TING INCOME Total other income	77,242,817 9,074,227	+	25,258,993 1,924,628
Total income	86,317,044	4	23,334,365
Interest on debt	27,030,730	_	1,594,036
TOTAL FIXED CHARGES	27,116,660	_	1,564,041
NET INCOME	58,359,821	-	21,923,035
		-	

Union Pacific .- Annual Report .- The 1943 annual report of this company shows a net income, after interest and other charges, of \$45,293,259, compared with a net income of \$62,083,985, in 1942. Selected items from the income statement follow:

Average Mileage Operated	1943	Increase or Decrease Compared With 1942
RAILWAY OPERATING . REVENUES	480,274,934	+127,210,391
Maintenance of way and structures Maintenance of	66,153,251	+20,582,954
equipment Transportation	82,040,969 125,863,402	+22,151,871 +31,643,702

Total Operating Expenses	300,074,772	+81,035,642
REVENUES OVER EXPENSES Total taxes	180,200,162 126,063,145	+46,174,749 +64,319,001
Equipment and joint facility rents— Net charge	12,931,162	+1,674,613
NET INCOME FROM TRANSPORTATION OPERATIONS Non-operating income	41,205,855 18,876,031	-19,818,865 +3,077,168
TOTAL INCOME	60,081,886	-16,741,697
Interest on funded debt	13,570,444	-144,068
Total Fixed and Other Charges	14,788,627	+49,029
NET INCOME	45,293,259	-16,790,726

SPOKANE INTERNATIONAL.—New Directors Elected .- W. W. Powell, head of the W. W. Powell Company, Spokane, Wash., and Nelson, B. C., and Phillip H. Ackert, partner in the firm of Freeman & Co., New York, have been elected members of the board of directors of the Spokane Interna-

Average Prices Stocks and Bonds

	March 21		Last
Average price of 20 representative railways stocks.		40.23	33.88
Average price of 20 representative railway bonds.	87.26	86.88	75.09

Dividends Declared

Carolina, Clinchfield & Ohio.—\$1.25, quarterly, payable April 20 to holders of record April 10.
Chicago & Eastern Illinois.—Class A (irregular), \$1.00 payable April 15 to holders of record March 31.
Pittsburgh, Bessemer & Lake Erie.—75¢, semi-annually, payable April 1 to holders of record March 15.

Annually, payable April 15.

Providence & Worcester.—\$2.50, payable April 1 to holders of record March 8.

Wheeling & Lake Erie.—75¢, payable April 1 to holders of record March 28.

Abandonments

ATLANTIC COAST LINE.—Division 4 of the Interstate Commerce Commission has authorized this company to abandon a branch from Otisca, Ga., to Amsterdam, 10.35 miles, pointing out that, while certain shippers may be somewhat inconvenienced, the dearth of traffic handled does not justify the continued operation of the line.

PERE MARQUETTE.—This company's applications for authority to abandon a branch from Clare, Mich., to Harrison, 16.58 miles, and a branch from Remus, Mich., to Weidman, 12.99 miles, have been approved by Division 4 of the Interstate Commerce Commission, with the condition that jurisdiction is reserved for 2 years for the protection of employees adversely affected.

50 BEDS are provided nightly in the Long Island R. R. Y. M. C. A., at Jamaica, for servicemen on furlough. Each serviceman receives clean bedding and, for a 50 cents charge, is accorded all the privileges of a guest. He checks his valuables at the desk, leaves a "call" for morning, enjoys a breakfast at cost in the cafeteria, and may make use of all the recreational facilities. Twice monthly, free dances are held, with many of the hostesses being drawn from railroad employees.

Railway Officers

EXECUTIVE

William H. Wenneman, assistant to the president of the Chesapeake & Ohio, has been promoted to the position of vicepresident of that road.

J. H. James, purchasing agent of the Pittsburgh & Lake Erie and the Lake Erie & Eastern, has been appointed assistant to the vice-president, with headquarters at Pittsburgh, Pa.

Carroll W. Ashby, superintendent; Danville division, of the Southern at Greensboro, N. C., has been appointed president and general manager of the Kentucky & Indiana Terminal, with headquarters at Louisville, Ky. He succeeds William S. Campbell, who at his own request is vicepresident in charge of industrial development, effective March 1. Mr. Ashby was



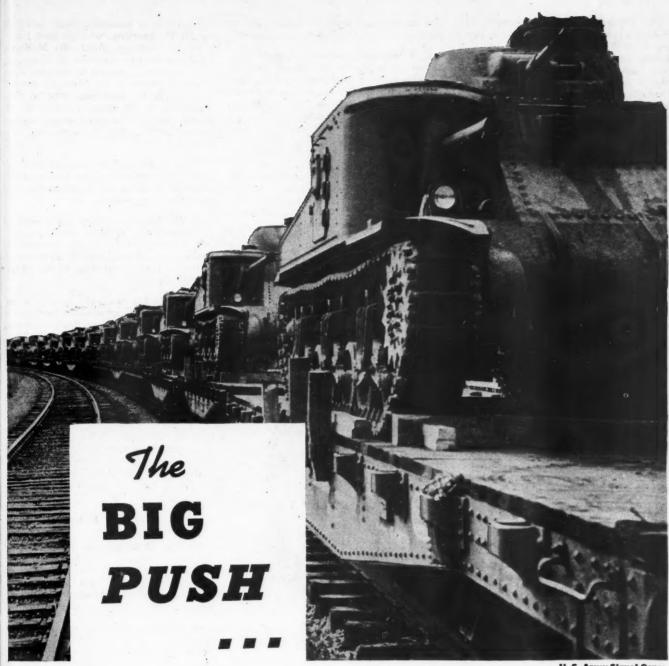
Carroll W. Ashby

born at Alexandria, Va., on June 5, 1897, and attended Kingston Collegiate Institute. His railway career began on October 18, 1920, when he was employed as a clerk in the treasury department of the Southern at Washington, D. C. In October, 1927, he was appointed assistant trainmaster at Columbia, S. C., and in May, 1929, became general yardmaster at Charleston, S. C. In December, 1931, he was transferred to Monroe, Va., in the same capacity. Mr. Ashby was subsequently promoted to trainmaster of the Danville division in June, 1934, and superintendent of the St. Louis-Louisville division at Louisville, Ky., in October, 1937. He returned to Greensboro the following year, and was serving in this position until his present appointment as president and general manager of the Kentucky & Indiana Terminal, at Louisville.

Donald Ashton, publicity director and acting director of research of the Chicago, Burlington & Quincy, the Colorado & Southern, the Ft. Worth & Denver City and the Wichita Valley, with headquarters at Chicago, has been promoted to executive assistant of all four roads, with the same headquarters. He will continue as publicity di-

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. . . starts here, on the railroads. Without the railroads, our armed forces and the tremendous amount of equipment and supplies, could not reach the coasts for re-shipment to our scattered battle fronts.

Steam locomotives play an important part in this and other essential rail transportation. While the steam locomotive is a dependable motive power...it must be maintained.

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rector and acting director of research. Mr. Ashton was born at Denver, Colo., on October 8, 1897, and attended Salt Lake Collegiate Institute (Westminster College), Salt Lake City, Utah, and the Wharton School of Finance of the University of Pennsylvania. In August, 1917, he enlisted in the U. S. Army as a private, later being commissioned second lieutenant in the Quartermaster Corps. In 1919 he became advertising manager of the Cheyenne (Wyo.) State Leader and from 1920 to 1921 he served as secretary of the Laramie (Wyo.) Chamber of Commerce. Mr. Ashton then served for a time as commercial agent of the Salt Lake & Utah and in 1922 he went with the Sacramento (Calif.) Bee as city editor. In 1928 he became advertising agent of the Great Northern at Seattle, Wash., and in 1933 he returned to newspaper work as night city editor of the Milwaukee (Wis.) Sentinel. In 1935 he went with the Mobile (Ala.) Register as an editorial writer and the following year he returned to railroad service as assistant advertising agent of the Burlington, with headquarters at Chicago. On December 15, 1942, he was promoted to the positions he held at the time of his new appointment.

Colonel Sidney Smith, assistant general counsel of the Louisville & Nashville, with headquarters at Louisville, Ky., has been promoted to vice-president and general counsel; with the same headquarters, succeeding E. S. Jouett, who has retired after 32 years' service.

FINANCIAL, LEGAL AND ACCOUNTING

Edwin O. Schiewe, chief clerk of the legal department of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Chicago, has been promoted to assistant general solicitor, with the same headquarters, succeeding Larry H. Dugan, who has been assigned to the duties of E. R. Eckersall, assistant general solicitor, who has resigned.

J. H. McChord, general attorney of the Louisville & Nashville, with headquarters at Louisville, Ky., has been promoted to general solicitor, with the same head-quarters. H. T. Lively, district attorney for Kéntucky, has been advanced to general attorney, succeeding Mr. McChord. W. L. Grubbs, commerce attorney, has been advanced to assistant general solicitor, and J. P. Hamilton, general claims attorney, has been promoted to assistant general attorney and will perform the duties of district attorney for Western Kentucky. C. S. Landrum, assistant district attorney for Kentucky, has been advanced to district attorney for Eastern Kentucky and Virginia. H. W. Willen, general claims agent, has been promoted to general claims attorney, and W. J. Crecelius, district claims agent, has been advanced to general claims agent, replacing Mr. Willen. J. F. Davis, chief clerk and attorney, has been promoted to senior attorney, and S. V. Scott, secretary of the assistant general counsel, has been advanced to attorney. J. T. Metcalf, U. S. district attorney for the Eastern district of Kentucky, and C. T. Coomes, secretary of the Kentucky Railroad Association, have been appointed general attorney and attorney, respectively, of the L. & N., with headquarters at Louisville.

C. F. Schwarz, whose promotion to assistant comptroller of the Chicago & Eastern Illinois, with headquarters at Chicago, was reported in the Railway Age of March 18, was born at Danville, Ill., on January 17, 1889, and entered railway service with the C. & E. I. in 1907 as a clerk at Danville. On August 17, 1908, he was transferred to the office of the superintendent of shops, with headquarters at Oaklawn, Ill., subsequently serving as accountant-clerk in the office of the superintendent of motive power, with the same headquarters. On June 15, 1913, Mr. Schwarz was promoted to chief clerk of the maintenance of equipment accountant, and three years later he resigned, returning to the C. & E. I. on February 1, 1918, as chief clerk of the maintenance of equipment accountant. In December, 1931, he was transferred to the tabulating department, with headquarters at Chicago, and on July 1, 1938, he was appointed chief clerk of the comptroller, the position he held at the time of his new promotion.

John C. Sites, whose promotion to comptroller of the Chicago & Eastern Illinois, with headquarters at Chicago, was



John C. Sites

reported in the Railway Age of March 18, was born at Petersburg, W. Va., on December 12, 1877, and received his higher education at the Shenandoah Institute, Dayton, Va., and Bridgewater College, Bridgewater, Va. He entered railway service on April 19, 1906, as a supervisor's clerk of the C. & E. I. at Villa Grove, Ill., subsequently serving as master carpenter's clerk at St. Elmo, Ill. In April, 1914, Mr. Sites was advanced to accountant in the office of the superintendent, and on June 15, 1916, he was promoted to chief accountant. On January 1, 1932, he was transferred to the comptroller's office, with headquarters at Chicago, and on August 1, 1939, he was promoted to assistant comptroller, the position he held at the time of his new appointment.

OPERATING

M. D. Thompson, superintendent of the Port Arthur division of the Canadian National, with headquarters at Pt. Arthur, Ont., has been promoted to general superintendent of the Saskatchewan district, with

headquarters at Saskatoon, Sask., succeeding H. H. Sparling, who has been transferred to Edmonton, Alta. W. McSparron, transportation assistant at Winnipeg, Man., has been advanced to superintendent of transportation of the Manitoba district, replacing E. G. Skelding, who has been transferred to Edmonton, relieving F. H. Keefe, who has been appointed superintendent at Pt. Arthur, succeeding Mr. Thompson.

T. A. McDonald has been appointed assistant superintendent of the Cincinnati division of the Louisville & Nashville, with headquarters at Latonia, Ky.

C. W. Wilson, assistant trainmaster of the Louisville & Nashville, with headquarters at Paris, Tenn., has been promoted to terminal trainmaster, with headquarters at Memphis, Tenn., succeeding R. M. Marr, who has resigned.

T. V. Parker has been appointed trainmaster of the Winston-Salem division of the Southern with headquarters at Winston-Salem, N. C.

L. G. Lyons, trainmaster of the Oklahoma division of the Chicago, Rock Island & Pacific, with headquarters at El Reno, Okla., has been transferred to the Chicago terminal, with headquarters at Chicago, succeeding J. E. Jones, who died recently.

W. T. Wilkins has been appointed assistant superintendent of the Southern with headquarters at Alexandria, Va. F. A. Burroughs is named trainmaster with the same headquarters, to succeed Mr. Wilkins.

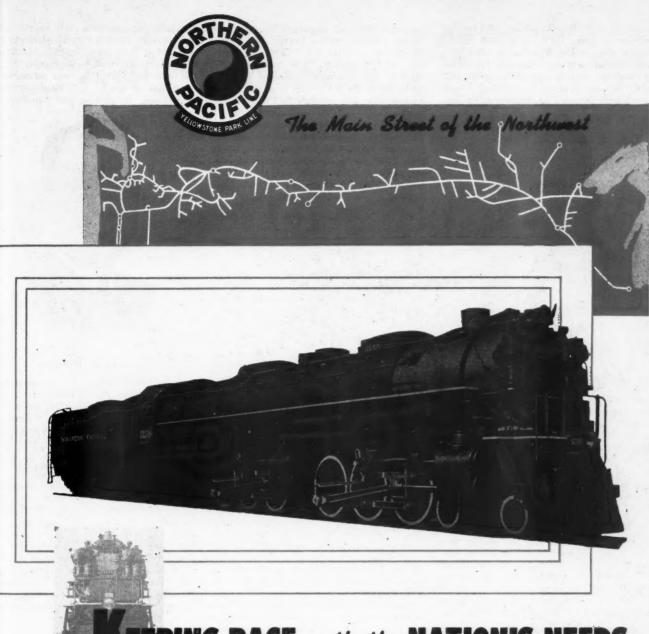
TRAFFIC

Irby L. O'Brien, coal traffic agent of the Illinois Central, with headquarters at Chicago, has been promoted to assistant general freight agent, with the same headquarters, succeeding Bentley M. Hamilton, who has retired after 52 years service.

H. L. Knox, commercial agent of the Seaboard Air Line with headquarters at Boston, Mass., has been promoted to the position of New England freight agent with the same headquarters, succeeding W. A. Reese. Mr. Reese has been named assistant general freight agent at Tampa, Fla.

John C. Borg, assistant to the Eastern traffic manager of the Denver & Rio Grande Western at Chicago, has been promoted to assistant to the general traffic manager, with headquarters at Denver, Colo. Dan Baldwin, traveling freight and passenger agent, has been advanced to assistant to the Eastern traffic manager, with headquarters as before at Chicago, succeeding Mr. Borg. T. J. Bacon, traveling freight and passenger agent, with headquarters at St. Louis, Mo., has been promoted to district freight and passenger agent, with headquarters at Dallas, Tex., replacing F. B. Rose, who has been transferred to St. Louis.

Arthur B. Murphey, whose promotion to general freight agent of the Toledo, Peoria & Western, with headquarters at Peoria, Ill., was reported in the Railway Age of March 11, was born at Cleveland,



EPING PACE with the NATION'S NEEDS

Alco, in 1943, received an order from the Northern Pacific—"The Main Street of the Northwest" — for eight 4-6-6-4 type single-expansion articulated locomotives. Upon the completion of this order, Alco will have delivered 48 of these modern high-powered 4-6-6-4 type locomotives to this road — all delivered since 1936.

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 250 Lb.

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 Tender Capacity—Fuel
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Ohio, on May 30, 1893, and entered railway service in June, 1911, as a clerk of the freight office of the Wheeling & Lake Erie, with headquarters at Cleveland. He served in various clerical capacities until 1921 when he was advanced to traveling freight agent, with the same headquarters. In July,



Arthur B. Murphey

1923, he was promoted to general agent, with headquarters at Chicago, and five years later he went with the Pittsburgh & West Virginia, as general agent, with the same headquarters. On November 1, 1930, Mr. Murphey was appointed general agent of the T. P. & W., at Chicago, and on January 1, 1943, he was promoted to assistant general freight agent, with headquarters at Chicago, the position he held at the time of his new appointment.

Edgar R. Vaughn, whose promotion to general passenger agent of the Illinois Central, with headquarters at St. Louis, Mo., was reported in the Railway Age of March 18, was born at Camden, Ala., on December 30, 1891, and entered railway service in the traffic department of the Southern on September 1, 1917, at Birmingham, Ala.



Edgar R. Vaughn

On May 1, 1918, he became associated with the consolidated ticket office in Birmingham, resigning two months later to enter the armed services during World War I. Mr. Vaughn returned to the consolidated ticket office in Birmingham on September 5, 1919, and in May, 1920, he

was appointed city passenger agent of the Illinois Central and the Central of Georgia (a subsidiary of the I. C.), with headquarters at Birmingham. On November 26, 1923, he was advanced to traveling passenger agent of the I. C., with headquarters at Tampa, Fla., and on July 9, 1930, he was promoted to district passenger agent at Jacksonville, Fla. On October 1, 1935, Mr. Vaughn was further advanced to general passenger agent, with headquarters at Memphis, Tenn., being appointed district passenger agent at Jacksonville two years later. He held that position until his new promotion.

W. B. Culpeper has been appointed assistant general freight agent of the Seaboard Air Line, involving duties connected with rate matters.

E. V. Graef, district passenger agent of the Louisville & Nashville, with headquarters at Nashville, Tenn., has been promoted to division passenger agent, with headquarters at St. Louis, Mo., succeeding G. E. Herring, who has retired.

Harry E. Benson, whose promotion to general freight agent of the Minneapolis, St. Paul & Sault Ste. Marie (Soo Line), with headquarters at Minneapolis, Minn., was reported in the Railway Age of March 18, was born at Minneapolis on November 17, 1896, and entered railway service with the Soo Line in 1912 as a yard clerk at Minneapolis. He subsequently served as demurrage clerk, claim clerk, disposition clerk and cashier and in 1925 he entered the traffic department as city freight agent, with headquarters at Minneapolis. In 1937 Mr. Benson was advanced to Pacific Coast agent, with headquarters at Seattle, Wash., and in January, 1939, he was promoted to general agent, with headquarters at St. Paul, Minn. One year later he was further advanced to district freight agent, with the same headquarters, and in July, 1941, he was promoted to assistant general freight agent at Minneapolis, the position he held at the time of his new appointment.



R. W. Seniff, chemical engineer of the Alton, with headquarters at Bloomington, Ill., has been appointed engineer of tests, with the same headquarters. The position of chemical engineer has been abolished.

J. Stewart, assistant division engineer of the Southern Pacific at El Paso, Tex., has been promoted to division engineer of the Salt Lake division, with headquarters at Ogden, Utah, succeeding G. L. Morrison, who has been transferred to the Shasta division, with headquarters at Dunsmuir, Cal., relieving G. M. Taylor, assigned to other duties.

George T. Donahue, whose promotion to district engineer of the New York Central Lines West of Buffalo, with headquarters at Cleveland, Ohio, was reported in the Railway Age of January 22, was born at Watertown, N. Y., and received his higher education at Ohio State University. He entered railway service as a transitman of the N. Y. C. at Rochester, N. Y., in September, 1916. From 1918 to 1926 he served as assistant supervisor of track, with

the same headquarters, and in the latter year he was promoted to assistant division engineer at Rochester. In 1929 Mr. Donahue was transferred to Syracuse, N. Y., and one year later he was advanced to supervisor of track, with headquarters at Watertown. In 1934 he was transferred to



George T. Donahue

New York and in 1937 he was advanced to special engineer in the office of the chief engineer, being promoted to division engineer, with headquarters at Chicago, in 1942. In 1943 Mr. Donahue was advanced to assistant district engineer, with headquarters at Cleveland, the position he held at the time of his new appointment.

Carlton B. Harveson, whose appointment as chief engineer maintenance of way of the Baltimore & Ohio, with headquarters at Baltimore, Md., was announced in the Railway Age of March 11, was born at Jacksonville, N. J., on December 18, 1885. He received his higher education at Bucknell College, and entered railroad service on April 1, 1905, with the Philadelphia & Reading Terminal as draftsman. After serving successively as rodman, assistant



Carlton B. Harveson

supervisor and supervisor, Mr. Harveson was in military service in this country and abroad from 1917 until 1919. He again joined the Philadelphia & Reading Terminal in 1919 as supervisor, and in July, 1922, became division engineer of the Baltimore & Ohio. He was promoted to the position

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March 25, 1944

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ervice hia & After istant of engineer maintenance of way in June, 1936, and continued in that capacity until his present appointment to succeed Philip Petri as chief engineer maintenance of way, at Baltimore. Mr. Petri, whose retirement also was reported in the Railway Age of March 11, was born on February 5, 1877. He entered railroad service on August 4, 1899, in the construction department of the Baltimore & Ohio at Cincinnati, Ohio. After having served in various capacities in that section and the real estate department, Mr. Petri was appointed assistant division engineer of the Chicago division on September 1, 1906. The following January he was named divison engineer of the Newark division. He then served successively as division engineer of the Shenandoah, Ohio River, Connellsville, and Cumberland divisions, being advanced to the post of district engineer maintenance of way, at Pittsburgh, Pa., in September, 1915. After eight months as special engineer in the office of the assistant to federal manager at Baltimore, Mr. Petri became division engineer of the Cumberland division at Cumberland, Md. He was promoted to engineer maintenance of way, eastern lines, in service the same year as mechanical draftsman of the Bessemer & Lake Erie. In 1918, Mr. Beaver was appointed to the position of assistant mechanical engineer, and in 1933, he assumed special duties in the car department on the development of light-



Roy C. Beaver

weight cars. In 1939 he was named assistant engineer motive power, continuing in that capacity until his recent promotion to the post of engineer motive power at Greenville.

Lewis Vickers has been appointed master mechanic of the Maryland & Pennsylvania, and will continue to perform the duties of shop foreman.

Thomas E. Dunn, general inspector of the motive power department, Delaware, Lackawanna & Western at Scranton, Pa., has been promoted to the position of master mechanic of the Morris and Essex division at Hoboken, N. J., succeeding T. M. Conniff. Mr. Conniff has been transferred to the Scranton division to replace Otto Sturm, now assistant master mechanic. Michael B. O'Meara, general enginehouse foreman at Scranton, has been promoted to master mechanic at Buffalo, N. Y., succeeding J. J. Nelson, resigned.

SPECIAL

M. C. McDowell, superintendent of the Bravo Oil Company at Houston, Tex., has resigned to become assistant superintendent of safety of the Southern Pacific Lines in Texas and Louisiana, with headquarters at Houston.

W. E. Rachels, assistant general freight agent of the Seaboard Air Line at Tampa, Fla., has been appointed special representative of that road at Norfolk, Va. In his new position Mr. Rachels will serve as an assistant in public relations and publicity.

PURCHASES AND STORES

Elmer F. Schaefer has been appointed purchasing agent of the Pittsburgh & Lake Erie and the Lake Erie & Eastern, succeeding J. H. James, whose appointment as assistant to vice-president is announced elsewhere in these columns.

OBITUARY

J. M. Long, superintendent of the Cambria & Indiana with headquarters at Colver, Pa., died on March 9.

T. J. Shea, who retired in 1941 as assistant general freight agent of the Great Northern, with headquarters at Chicago, died in a hospital in that city on March 20.

Ralph Norman Begien, who retired in 1933 as vice-president of the Chesapeake & Ohio, and in 1938 as vice-president-advisory, died on February 27. He was 68 years old.

Timothy Edward Byrnes, at one time president of the Montpelier & Wells River and the Barre, and vice-president of the New York, New Haven & Hartford and the Boston & Maine from 1904 until 1913, died on March 19 at St. Petersburg, Fla. He was 90 years old.

Arthur E. Owen, chief engineer of the Central of New Jersey, died March 21 on the train between Jersey City Terminal and



Arthur E. Owen

Bound Brook, N. J., en route to his home at Abington, Pa. Mr. Owen, who was 68 years old, was born at Montclair, N. J. He attended Rutgers College, and entered railway service in 1898 as a rodman of the Central of New Jersey. The following year he became transitman and assistant engineer, and in 1907 was appointed principal assistant engineer. In 1916 Mr. Owen was promoted to the position which he held until the time of his death, that of chief engineer of the Central of New Jersey and of the New York & Long Branch. From 1938 until October 1, 1943, he was also chief engineer of the Reading.

Frank R. Judd, who retired in August, 1943, as engineer of buildings of the Illinois Central, with headquarters at Chicago, died at his home in that city on March 19. A sketch of Mr. Judd's career appeared in the Railway Age of August 28, at the time of his retirement.

John H. Mangold, vice-president, traffic, of the Elgin, Joliet & Eastern, with headquarters at Chicago, died in a hospital at Rochester, Minn., on March 10 after a lengthy illness.



Philip Petri

September, 1926, and again to chief engineer maintenance of the entire Baltimore & Ohio system on June 10, 1936. He held this position until his recent retirement.

H. E. Perkins, assistant engineer of the Baltimore & Ohio at Wheeling, W. Va., has been promoted to division engineer at the same location succeeding J. H. Lindsay, transferred to Grafton, W. Va., to replace Guy Long. Mr. Long is moved to Connellsville, Pa., replacing W. E. Kearfott, who has been transferred to Akron, Ohio. He succeeds E. J. Clopton, who is transferred to Cumberland, Md., succeeding H. L. Exley, whose appointment as division engineer at Cumberland, Md., was announced in the Railway Age of March 11.

MECHANICAL

Roy C. Beaver, whose appointment as engineer motive power of the Bessemer & Lake Erie, with headquarters at Greenville, Pa., was announced in the Railway Age of March 11, was born at Greenville on August 29, 1889. He was graduated from Thiel College in 1913, entering railroad



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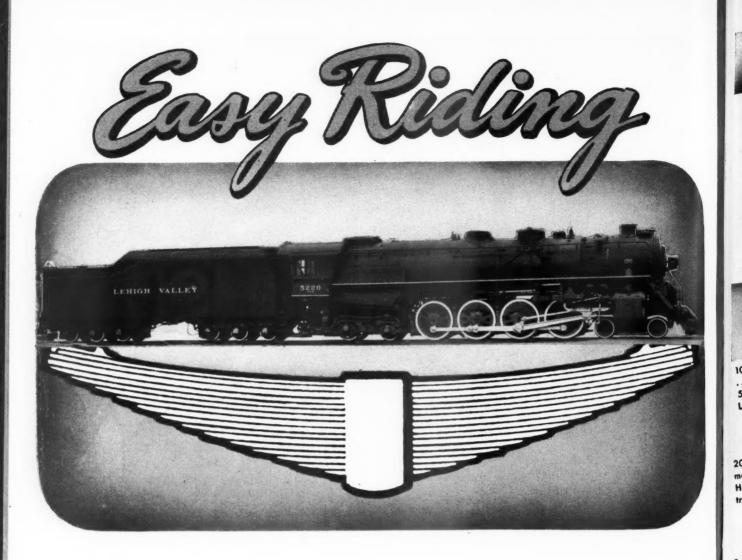
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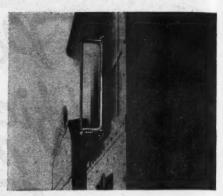
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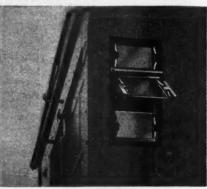
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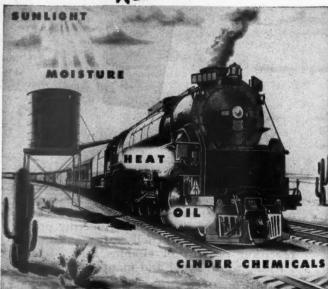


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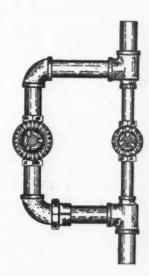
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RAILROADS AND PUBLIC WELFARE

By EMORY R. JOHNSON

Professor Emeritus of Transportation and Commerce. Wharton School of Finance and Commerce University of Pennsylvania

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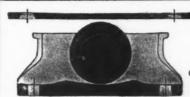
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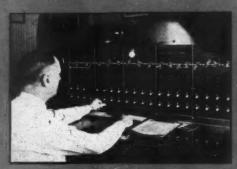
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